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Faith in God and modern
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FAITH IN GOD
AND
MODERN ATHEISM

COMPARED,

IN THEIR ESSENTIAL NATURE, THEORETIC GROUNDS,
AND PRACTICAL INFLUENCE.

BY

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PREFACE.

THE Author deems it unnecessary to offer any apology for the publication of the following work. It has been prepared under an impression, which growing experience has tended only to deepen and confirm, that a Crisis is impending in the Religious History of this country such as will put the faith of many in the most elementary principles of Divine truth to a very severe and perilous test. There is, no doubt, much religious profession, and a very general acknowledgment, among the educated classes, of the necessity and value of religious instruction: but no one can have marked the signs of the times, without discovering that, beneath the smiling surface of society, there is a deep under-current of dark and troubled thought, a restless spirit of inquiry, an uneasy sense of doubt, a conscious dissatisfaction with existing beliefs, which, whether openly avowed or secretly cherished, reveals itself too clearly both in our philosophy speculations and our popular literature, and betrays an incipient tendency

to unbelief, which may leave many to fall an easy prey to the arts and arguments of Infidelity. It has been publicly proclaimed that Christianity is effete,—that its mission has failed,—that its doctrines are antiquated and obsolete,—and that the Church of the Future must be widely different from the Church of the Past. The author of “The Task of To-day” tells us, that “Christianity, once a green and flourishing tree, is now sapless, pithless, and rotten; nothing but the bark is left; it totters to and fro. Let thinking men quit its shade, lest it crush them in its fall.” And even the simplest and most indispensable articles of Natural Religion seem to have lost their hold on the minds of many who in other departments evince much vigour and freshness of thought. “The whole current hypothesis of the Universe being a Machine,” says a distinguished writer, “and then of an Architect who constructed it, sitting as it were apart, and guiding it, and seeing it go, may turn out an inanity and nonentity not much longer tenable; with which result we shall in the quietest manner reconcile ourselves. Our Natural Theologies may, in reference to the strange season they appear in, have a certain value, and be worth printing and reprinting; only let us understand for whom, and how, they are valuable; and be nowise wroth with the Atheist, whom they have not convinced, and could not and should not convince.” And a popular lecturer has uttered the ominous boast,—“The evil hour of the saints is come. I am in a position to force an Atheistic controversy from one end of the land to the other,

—and I will force it. The opportunity of an age is thrown into our hands.”

In such circumstances a work on the fundamental principle of all Religion cannot be unseasonable, if it be executed in an earnest spirit, and adapted to the wants of the age. The Author will only add, in the way of personal explanation, that having been appointed in the spring of 1845 Professor of Apologetic Theology in the New College, it became his duty to prepare a complete Course of Lectures on the Evidences of Natural and Revealed Religion. On the lamented death of Dr Chalmers in 1847, he was translated to the vacant Chair of Systematic Theology. His preparations for the former Chair were thus rendered unavailing for the ordinary labours of his present class. The following work contains, in an altered form adapted to general readers, the substance of his prelections on the Evidences of Natural Religion; and it is his intention, if spared, to follow it up with another on the Evidences of Revealed Religion, or “The Witness of God which He hath testified concerning His Son.”

51 LAURISTON PLACE, EDINBURGH,

1st November 1855.



SECTION I.

STATEMENT OF THE EVIDENCE FOR THE BEING
AND PERFECTIONS OF GOD.



STATEMENT OF EVIDENCE, &c.

CHAPTER I.

INTRODUCTION—HISTORICAL RETROSPECT OF THE VARIOUS
METHODS OF STATING THE EVIDENCE—PRELIMINARY
QUESTIONS.

THE contrast between FAITH IN GOD and ATHEISTIC UNBELIEF is strongly marked, and strikingly exemplified, in the Sacred Writings.

Of the one, it is written,—

“The fool hath said in his heart, No God!”

“The wicked, through the pride of his countenance, will not seek after God; God is not in all his thoughts.”

“Wherefore doth the wicked contemn God? He hath said in his heart, Thou wilt not require it.”—“He hath said in his heart, God hath forgotten,—He hideth his face,—He will never see it.”

“They turned back from Him, and would not consider any of His ways.”

“They regard not the works of the Lord, nor the operation of His hands.”

“When they knew God, they glorified Him not as God, neither were thankful.”—“They did not like to retain God in their knowledge.”

“They *profess* that they know God; but in works they *deny* Him.”

“The carnal mind is enmity against God.” *

Of the other, it is written,—

“Be still, and know that I AM GOD.”

“If the Lord be God,—follow Him.”

“The fear of the Lord is the beginning of wisdom.”

“This is life eternal, that they might know thee the only true God.”

“Let him that glorieth, glory in this, that he *understandeth and knoweth* ME, that I am the Lord which exercise loving-kindness, judgment, and righteousness in the earth; for in these things I delight, saith the Lord.”

“He hath shewed thee, O man, what is good; and what doth the Lord require of thee, but to do justly, and to love mercy, and *to walk humbly with thy God?*”

“O house of Jacob, come ye, and let us *walk in the light of the Lord.*”

“I have set the Lord always before me; because He is at my right hand I shall not be moved.”

“I will look unto the Lord; I will wait for the God of my salvation, my God will hear me; . . . when I sit in darkness, the Lord shall be a light unto me.”

“God is our refuge and strength, a very present help in trouble; therefore will not we fear, though the earth be removed, and though the mountains be carried into the midst of the sea. . . . The Lord of hosts is with us, the God of Jacob is our refuge.”

* Psalm xiv. 1, x. 4, 11, 13; Job xxxiv. 27; Psalm xxviii. 5; Isaiah v. 12; Rom. i. 21, 28; Titus i. 16; Rom. viii. 7.

“My soul, wait thou only upon God, for my expectation is from Him. He only is my rock and my salvation; He is my defence; I shall not be moved. In God is my salvation and my glory; the rock of my strength, and my refuge is in God. Trust in Him at all times, ye people: pour out your heart before Him; God is a refuge for us.”

“O God, thou art my God: early will I seek thee; my soul thirsteth for thee, my flesh longeth for thee in a dry and thirsty land where no water is,—to see thy power and thy glory, so as I have seen thee in the sanctuary. Because thy loving-kindness is better than life, my lips shall praise thee.” “When I remember thee upon my bed, and meditate on thee in the night-watches; because Thou hast been my help, therefore in the shadow of thy wings will I rejoice. My soul followeth hard after *thee*, thy right hand upholdeth *me*.”

“The Lord is my light and my salvation; whom shall I fear? The Lord is the strength of my life; of whom shall I be afraid? One thing have I desired of the Lord, that will I seek after, that I may dwell in the house of the Lord all the days of my life—to *behold the beauty of the Lord*, and to *inquire* in his temple.”

“When thou saidst, Seek ye my face; my heart said unto thee, Thy face, Lord, will I seek.”

“Whom have I in heaven but thee? and there is none in all the earth that I desire besides thee. My heart and flesh fail; but God is the strength of my heart, and my portion for ever.”

“Although the fig-tree shall not blossom, neither shall fruit be in the vines; the labour of the olives shall fail, and the fields shall yield no meat; the flock shall be cut off from the fold, and there shall be no herd in the

stalls,—yet I will rejoice in the Lord, I will joy in the God of my salvation.” *

Such is the striking contrast which is drawn in Scripture between Faith in God and Atheistic Unbelief,—a contrast which evidently implies much more than a mere difference of *speculative opinion*, and amounts to a radical opposition of *spiritual character*. Faith in God, such as is delineated in the lessons, and exemplified in the narratives of the Sacred Book, is something widely different from a mere intellectual conviction, or a verbal acknowledgment of His Being, for that may co-exist with habitual practical ungodliness: “Thou believest that there is one God; thou doest well; the devils also believe and tremble.” Such a belief is perfectly consistent with the spirit of Atheism. There may be “an evil heart of Unbelief in departing from the living God,” where there is no avowed speculative infidelity. Atheistic Unbelief may sometimes whisper in the heart, or even utter with the lips, the fearful words—No God; but it manifests itself more frequently, and with equal certainty, in the habitual forgetfulness of God,—in the prevailing disposition to escape from His presence,—in the practical disregard of His claims,—in the constant tendency to adopt partial views of His character, and to question the reality of His moral government,—in the strong aversion to “seek after God,” or “to consider the operation of His hands,”—in the feelings of distrust, jealousy, and suspicion, with which He is regarded,—in the unwillingness which is felt to acknowledge His sovereignty, His rectitude, His love,—and in the inveterate

* Psalm xlv. 10; 1 Kings xviii. 21; Prov. i. 7; John xvii. 3; Jer. ix. 24; Micah vi. 8; Isaiah ii. 5; Psalm xvi. 8; Micah vii. 7, 8; Psalm xlv. 1, 8, lxii. 5, lxiii. 1, 6, 7, xxvii. 1, 4, 8; Habak. iii. 17.

“enmity” which cannot endure the thought of God AS HE IS, and which will not be “subject to the law of God, neither indeed can be.” Such is the nature of that “Unbelief” which is so frequently mentioned in Scripture; it may, or it may not, be associated with a profession of religion, but it involves the essential spirit of Atheism; for men may have “the form of godliness, and yet deny the power thereof,” they may “*profess* that they know God, and yet in works *deny* Him.” In like manner, Faith in God is described in Scripture as implying much more than the mere acknowledgment of His existence: “He that cometh to God must believe that HE IS, and that He is *the rewarder of them that diligently seek Him.*” It is not an occasional thought, or a transient impression, of the Divine Majesty, but an habitual sense of His presence, such as produces “reverence and godly fear,” and makes the believer to live “*as seeing Him who is invisible.*” It implies an assured conviction of His being, and a knowledge of His true character, as the sole Creator and supreme Governor of the world; but such a belief as produces trust and confidence in Him, and makes Him the object of supreme love,—the source of spiritual joy. It chooses God as the chief good,—the only satisfying portion of the soul: it *rests* in Him,—it *waits* for Him,—it *longs* after Him,—it *walks* with Him,—it *seeks* His face,—it *meditates* on all His works,—it meekly *receives* His word,—it *submits* to His Providence,—it *obeys* His will,—it *delights* in His fellowship,—it is *zealous* for His glory,—it *worketh* by love,—it *casteth* out fear,—it takes away “the spirit of bondage,” and imparts “the spirit of adoption, which crieth, Abba! Father.” Such is the nature of that “Faith in God” which is inculcated in the sacred writings.

When we turn from the sacred page to the record of

human experience, and compare its lessons with the facts of our most familiar knowledge, we can hardly fail to perceive, that the same *contrast* which is so strikingly delineated there, is still visibly exemplified in the actual state of the world. Account for it as we may, mankind are undeniably divided into two great classes,—the believing and the unbelieving, the godly and the ungodly. We cannot commune with our own hearts, or mingle with society, or listen to the language, or observe the conduct of men, without discerning the *reality* of that contrast. We see some who “set the Lord continually before them;” we see others who “are without God in the world:” some who live as “seeing God who is invisible;” others who “have no fear of God before their eyes:” some who “seek after God, if haply they may find Him;” others who “will not seek after God,—God is not in all their thoughts:” some who realise His constant presence, and recognise His governing Providence; others who say, “God hath forgotten, He hideth his face, He will never see it:” some who acknowledge Him in all their ways;” others who “in their works deny Him;” some who “pray to God always;” others who “call not on His name:” some who fear, and love, and obey Him; others who say, “Who is the Lord that we should obey Him; and what profit is there if we serve Him?” The *contrast* is as *real* as it is striking: it is not only delineated on the page of Scripture, it is exemplified also in the actual state of the world.

What may be the *cause* of this vast difference between two classes of men,—all endowed with the same intellectual faculties, all surrounded by the same glorious universe, and all subject to the same moral law,—is a question of deep and solemn interest, but one which must, for the present, be postponed; in the meantime, we look

merely to the *fact*, so prominently exhibited in Scripture, and so undeniably evident from experience, and in this *fact* we find the origin of THE GREAT CONFLICT,—coeval almost with the origin, co-extensive with the spread, and commensurate with the duration of our race,—the conflict between Faith and Unbelief. For two large classes of men, living together and closely connected in other respects, cannot entertain views, and cherish dispositions, and pursue practical paths, so totally different, without coming into frequent collision; and, however tolerant of each other's peculiarities, they will feel that they are necessarily in a state of antagonism on a subject of momentous importance, and will seek to vindicate their own sentiments by the most strenuous exercise of all their faculties. Unbelief can scarcely exist in the presence of Faith, without entrenching itself behind some defensive rampart, and seeking to undermine the foundations of religion; and Faith can scarcely maintain its ground in the presence of Unbelief, without having recourse to the shield of evidence, and the weapons of reason. Hence the early rise and perpetual renewal of the *great controversy* which has agitated the minds of men in all ages, and which, simply defensive in its origin, soon becomes offensive in its progress, and can never cease while the same difference continues to subsist between Truth and Error,—Faith and Unbelief. It is the inevitable result of that difference, whether Religion be traced ultimately to the light of Nature, or to the light of Revelation. Pushed to its extreme limit, and viewed in its widest generality, it turns on the evidence for the being, perfection, providence, and moral government of God.

In the oldest and most venerable Record of religious faith,—a record which, apart from its divine authority,

must ever be regarded as the most instructive document of antiquity, there is no elaborate argument, or formal proof, in favour of the doctrine which affirms the being and perfections of God. That doctrine is rather assumed than argued; it is authoritatively announced, not dialectically demonstrated. This method of treating the subject is in perfect accordance with the idea of a pristine Revelation, coeval with the commencement of the human race; and it reminds us that, according to the Scriptures, mankind were never left entirely to the guidance of the unaided light of nature. But, assuredly, it affords no reason, or even pretext, for overlooking the existence, or denying the validity, of a *natural evidence* for God. On the contrary, the very earliest Scriptures,—those of Moses and Job, not less than the Psalms and the Prophets,—do frequently and pointedly refer to the works of Creation and Providence, in proof or illustration of His being and attributes. These references are made not in the way of formal, logical argument, but rather in the way of simple and direct appeal,—the decision upon the evidence being left to the spontaneous judgment of those to whom it is presented. This method of teaching was the most suitable in the earlier stages of society, while as yet Philosophy and Science were unknown; just as it is still the most useful, and indeed the only available, method with multitudes who can discern the evidence which shines in nature, while they are utterly incapable of appreciating a lengthened logical proof.

For it must never be forgotten, that in the progress of society, just as in that of the individual from youth to manhood, there is first the *spontaneous*, and afterwards the *reflective* exercise of thought.* The *direct* action of

* M. BOUCHITTÉ, "Histoire des Preuves de l'Existence de Dieu," *Memoires de l'Academie, Savants Etrangers*, I. 479, 512.

the human faculties on the objects which are presented to them in nature, takes precedence of the *reflex* operation, by which a self-conscious mind takes cognisance of its own processes and laws. *Belief* springs from the direct and spontaneous, the *philosophy of belief* from the reflective exercise of thought; and hence, a natural, and all but intuitive belief in God might be generated by the magnificent spectacle of Nature, especially on the supposition of a pristine Revelation, long before men began to investigate the intellectual principles and processes that were concerned in the production of it. It was only at a later stage, when thoughtful and reflecting spirits sought to account to themselves or others for their cherished beliefs, and to explain the rational grounds on which they rested, that the "natural evidence" for the being and perfections of God, which had been discerned before, became the subject of philosophical inquiry, and assumed the form of a systematic proof. And even when this stage was reached, the various elements which constitute the substance and strength of that evidence, might not be all at once fully comprehended, and still less accurately discriminated and defined. 'The popular argument from the beginning must have been, and probably must ever continue to be, that which is founded on *two* considerations, patent to the observation, and confirmed by the experience of all; the *first* being the manifest adaptation of means to ends in the economy of nature, whereby many most wise and beneficent purposes are subserved; and the *second*, the moral consciousness which bespeaks a Law and a Lawgiver, and instinctively suggests the idea of responsibility and retribution. But the philosophical argument, although neither more conclusive nor more impressive, might be more subtle,

elaborate, and systematic; and, accordingly, from the earliest dawn of speculative inquiry, there has been a continuous series of systems bearing on the origin of the world, and the existence and nature of God.

Hegel conceives that it is easy, in an historical point of view, to account for the origin, and even to explain the order and filiation, of the various methods of proof. He endeavours to show that the "cosmological" proof is the most ancient of all, belonging to the infancy of the race,—a proof founded on the mere existence of the world, without any consideration of its peculiar properties or laws, and which might give the idea of an eternal Cause, but not that of an intelligent moral Governor; that next in order came the "teleological" proof, which rests on the *facts of fitness* everywhere discernible in the frame of nature, and which might give the idea of a Divine Artificer, or Protoplast, moulding the materials of nature into useful and beautiful forms, but not that of a Creator, strictly so called, as one who gave *existence*, as well as *form*, to the materials themselves; that next again in order came the highest proof of all, the "ontological," the last in the normal development of man's intelligence,—a proof which does not rest on any empirical facts, but is purely *a priori*, and depends entirely on the "ideas of reason." There is good reason, we think, to doubt whether this theory can be satisfactorily verified. It appears to us that the different methods of proof, although they might occasionally appear as rivals, were not necessarily antagonists to each other,—that they might exist simultaneously, not in a state of conflict, but of concord, and even of combination,—and that, in point of fact, they were, at least in the fundamental principles on which they severally depended, not successive but synchronous, while, in their mere

form, they might be modified, to a large extent, by the peculiar taste and genius of individuals, or the state of public opinion, at different epochs in the progress of philosophical inquiry. The “ontological” proof, which is supposed to be the latest and highest development of human intelligence in this department, may be traced up, historically, from Descartes to Anselm, from Anselm to the Alexandrian school, and from the Alexandrian school to Plato himself. Indeed, if it be duly considered that all the elements, which constitute the substance and strength of the “natural evidence” for the being and perfections of God, have been co-existent from the beginning,—that the mental faculties, and the objects with which they are conversant, have been ever the same,—and that from one or other, or both of these, every conceivable argument on this subject must necessarily be derived,—it will seem neither improbable nor unnatural to suppose that, from the earliest dawn of reflective thought, the different aspects of the evidence may have attracted the special attention of different inquirers, and that,—each pursuing the path most congenial to his own tastes and habits,—some may have given greater prominence than others either to the physical or the metaphysical element, while both were labouring with equal zeal in the same cause.

When the various methods of proof are arrayed against each other, as rival and even as antagonist systems, it may be justly said, that their exclusive claims are founded on a partial preference for some one element in the case, to the comparative neglect of certain other elements, which are neither less essential nor less important to the completeness of the argument. In Theology as in Philosophy, there is a fundamental antithesis, and yet a close connection, between the *object*

and the *subject* of human thought,—between the external manifestation and the internal perception of truth. Both are equally indispensable to knowledge of any kind; the very possibility of knowledge, such as belongs to man, is destroyed on the supposition, either of a mind without an object, or of an object without a mind by which it may be discerned. But the speculative inquirer may bestow a partial, an inordinate, or even an exclusive attention on one or other of the antithetic terms; he may look *only* either to the objective manifestation, or to the subjective perception of the evidence; or if he is forced occasionally to refer to both, he will give the chief prominence to that which is most congenial to his own speculative tastes. Hence, the divarication of the proof into *two* great rival systems, each including several distinct methods, which differ in other respects, but agree in this, that they all severally belong to one or other of the alternative terms of that *fundamental antithesis*, to which we have just referred. The Idealist, looking only to the *subjective* element, seeks to construct a proof *a priori*, which shall be almost, if it cannot be altogether, independent of the data of experience, and reach the conclusion by a direct act of intuition, or by a process of abstract thought. To this class belong several distinct methods, such as those of Anselm, Descartes, Clarke, and Lowman, and also, in part, those of Kant, Jacobi, Schelling, and Constant. These methods are very different, but they all resemble each other in this, that they severally depend mainly, and some of them exclusively, on the *subjective* element, or that which the *mind* contributes to the process of proof: they are, to a large extent, independent of all existence, excepting that only of the mind itself, and even of all evidence, excepting that of its own consciousness. But,

if the Idealist attaches himself thus exclusively to the subjective element, there are speculative minds of another cast, that may readily fall into the opposite extreme,—minds of a strong practical bias,—abjuring metaphysics,—looking only to facts,—and devoted to experimental inductive inquiry, that may be tempted to bestow an exclusive attention on the *objective* part of the proof, and to seek in it a kind and amount of evidence which, *by itself alone*, it cannot yield.

Such are the *two great lines of proof* which have been, severally, prosecuted in all ages by different inquirers, according to their peculiar mental tendencies. We are not disposed to reject either of them absolutely, nor yet to accept either of them *exclusively*. We cannot doubt that there is in each of them some element of thought, which may have a real, and perhaps important relation to the subject of inquiry,—some portion or fragment of truth which may admit of being usefully applied to it in the way either of proof or illustration; and that, although they have often been treated as rival and antagonist systems, whatever is true in each of them may, possibly, be combined in one compact and comprehensive argument, so as to form a firm phalanx of independent, but mutually connected and subservient proofs. Different kinds of evidence, and different modes of presenting the same evidence, are required to meet the different capacities and tastes of men. Some, who are plain, practical, inductive inquirers, will prefer the argument from design or final causes; others, who are more given to abstract speculation, or accustomed to the processes of *deductive* reasoning, will have greater sympathy with the speculations of Anselm, Descartes, and Clarke; while others still, in whom the imaginative or the emotional predominates over the intellectual, will luxuriate in the forms of

natural beauty, and revel in the sweets of sentiment, accepting these as sufficient proofs to them of an all-perfect Mind, without being at all solicitous to invest their thoughts in the garb of formal logic. For ourselves, we deprecate every attempt to disparage any kind of evidence or of illustration, that may serve either to establish the truth or to deepen the impression of God's being and majesty. We would give free scope to *all* the faculties of the soul, not only to pure reason and abstract thought, but even to imagination, and sentiment, and taste; we would appeal to the faculty of conscience,—to the perception of the beautiful and sublime,—to the sense of dependence, reverence, and awe,—to the hopes and fears, the aspirations and yearnings of every human soul; we would accept and combine the contributions of them all, and still keep our minds open to receive and welcome every ray of light, from whatever quarter descending, which may aid us in raising our thoughts and affections towards the Supreme.

It seems often to be forgotten, or not duly considered, that a method of proof which, viewed by itself apart from other collateral considerations, is felt to be defective, may nevertheless contain in it some element of truth, which admits of being most usefully applied to some part of the general argument. It may be difficult,—perhaps it is impossible,—to deduce the existence of God, as Descartes proposed, from the mere conceptions of our own minds, or at least to construct an argument out of them in strict logical form; and yet, there is something in the fact that we have, and cannot but have, the idea of an infinite and all-perfect Being, that commends the doctrine concerning God to our highest reason, and gives it only the greater power over our convictions, just in proportion as it is the more vividly conceived and the more seriously

considered. In like manner, it may be difficult,—perhaps impossible,—to prove on pure *a priori* principles, from the mere fact of existence, the reality of a Supreme First Cause, intelligent and free: and yet there is something in the sublime and mysterious ideas of Immensity and Eternity,—the Infinite in space and the Infinite in duration,—which has a close connection with the “natural evidence” for the being and perfections of God; and this connection was marked by Mr Dugald Stewart, even when he expressed his dissatisfaction with the *a priori* argument. “Although the argument,” he says, “as stated by Clarke, does not carry complete conviction to my mind, I think it must be granted that there is something peculiarly wonderful and overwhelming in those conceptions of Immensity and Eternity, which it is not less impossible to banish from our thoughts than the consciousness of our own existence. Nay, further, I think that these conceptions are *very intimately connected* with the fundamental principles of Natural Religion. For when once we have established, from the evidences of Design everywhere manifested around us, the existence of an intelligent and powerful Cause, we are unavoidably led to apply to this Cause our conceptions of Immensity and Eternity, and to conceive of Him as filling the infinite extent of both with His presence and with His power. Hence we associate with the idea of God those awful impressions which are naturally produced by the idea of infinite space, and, perhaps, still more, by the idea of endless duration. . . . So that the conceptions of Immensity and Eternity, if they do not of themselves demonstrate the existence of God, yet *necessarily enter into the ideas we form of His nature and attributes.*” *

In regard, again, to the argument from “final causes,”

* DUGALD STEWART, “Preliminary Dissertation,” p. 141.

or the marks of design and intelligence everywhere visible in the works of Nature,—it may seem, at first sight, to labour under a radical and incurable defect; for Nature, however vast, is still finite, and no finite effect may appear adequate to afford a manifestation of an Infinite First Cause. Yet the marks of intelligent design, and the proofs of powerful agency in Nature, afford the most popular and most impressive evidence of the being and perfections of God. And why? Simply because provision is made *in the internal structure of the human mind*, for educing the necessary from the contingent,—the eternal from the transient,—the infinite from the finite: a provision which takes immediate effect, even when men are scarcely conscious of its operation, or have never, at least, made it the subject of reflective thought. No sooner does any mind believe in its own existence, or in that of any other object in nature, than it is forthwith constrained, by an internal and inevitable necessity, or rather directed by a fundamental law of thought, to conclude that some Being *must* have existed *from all eternity*. Separate the facts of Nature from this fact of consciousness, and you go far to invalidate the proof from “final causes;” but conjoin them in your system, as they are actually conjoined in experience, and you can show that, while Nature, as finite, mutable, and transient, cannot be *an adequate measure*, it may yet be *a sufficient manifestation* of the Infinite and Eternal.

The Ethico-practical proof, on which Kant so strenuously insists, whether it be derived from the laws of individual conscience or the moral relations of social life, depends on considerations that are, to a certain extent, valid,—and that contribute to swell the amount of Theistic evidence. These considerations must, in fact, be taken into account if we would form any idea of God,

as the Moral Governor of the world: for it is from this source alone that we derive our conceptions of His moral character, and of his relation to ourselves, as our Law-giver, Ruler, and Judge. Any idea of God that might be formed from the mere indications of skill and power in nature, apart from the *moral* manifestations of His character, must needs be lamentably defective; and would amount merely to the knowledge of an omnipotent cause,—or skilful mechanist,—not of Jehovah, Holy, Just, and Good.

For the reasons that have thus been briefly indicated, we are disposed to regard almost every method of proof which has been adopted as containing some element of truth,—some fact or principle, which, at one stage or another, may be beneficially applied in the way of either confirming or illustrating the doctrines of Natural Theology. The evidence for the being and perfections of God is not simple but complex; it springs from various sources, and flows in different channels; it cannot be embodied in a single syllogism, nor exhausted by any one process of reasoning; it is essentially *a cumulative proof*, embracing a vast variety of different facts, and depending on several distinct laws of thought; and we shall do no justice,—we may even do great injury, to the sacred cause, if we venture either to circumscribe the field of inquiry within narrow and arbitrary limitations, or to confine ourselves to one principle of reason as the sole basis of proof.

We have said that the *objective* and the *subjective* elements of proof are equally indispensable,—that the facts observed in nature would afford no evidence apart from those rational principles by which alone they can be discerned and interpreted, and that these rational principles, again, could have no occasion for their exercise, apart

from the phenomena of nature and experience. This necessary co-relation between the *facts* of observation and the fundamental *laws* of thought, suggests the inquiry whether, in the statement of the evidence, we should begin with a discussion of the *principles of reason* on which its validity depends, or with an exhibition of *the facts in nature* by which these principles are called into action? Considered as subjects of speculative inquiry, these two topics, although closely related, are radically distinct; and it might seem to be the most scientific course to establish, in the first instance, the rational principles or laws of thought on which the validity of the proof depends, and thereafter to apply them to the facts of nature and experience. But, for practical purposes, we think it better to adopt a different course, and one that is more in accordance with the actual progress of the mind in the acquisition of knowledge. It should never be forgotten that a large portion of our most important knowledge is acquired, in the first instance, by the *spontaneous* exercise of our faculties on their appropriate objects, and that it is not till a later stage that we derive any advantage from the process of *reflective* thought, or the analysis of the mental laws by which our spontaneous judgments were determined. If the laws of thought, to which we appeal, be really connatural to the human mind, they will come into play spontaneously on the presentation of the objective evidence;—and by our own consciousness of their operation in our bosoms we shall be best prepared for estimating their force, and appreciating their value, as constituent elements in the general proof. State the *fact* in the first instance, and let the *law* operate spontaneously: then advance, with the aid of this new-born consciousness, to a critical inquiry into the mental process. By reversing this order, we

involve ourselves at the outset in what must be an abstruse discussion of the principles of Psychology and Metaphysics, which is in nowise necessary to legitimate our spontaneous judgments, and which may be reserved with advantage for a later stage. At each stage in our course, we present a fact, or a class of facts,—which are no sooner understood in their true import than the mind spontaneously acts upon them according to its fundamental laws: and it is thus prepared to respond to any appeal that may be afterwards made to its own consciousness in verification of these laws. And as, in point of fact, the only parts of the proof which can be seriously questioned are those which depend—not on the facts of nature—but on the principles of reason, it is advisable, we think, to present the *facts* in the first instance, that they may make their own natural impression on the mind, and to proceed thereafter to a separate consideration of the Psychological principles which are involved in the process of proof.

On a survey of the various methods of stating the proof, as they have been successively exhibited, *four* questions of a preliminary kind are naturally raised: *first*, whether a formal proof of the existence of God be either *possible* on the one hand, or *needful* on the other? *secondly*, whether, on the supposition of its being both possible and useful, it may be best conducted in the *a priori* or the *a posteriori* method? *thirdly*, whether, on the same supposition, it should consist chiefly of those facts and considerations which are patent to all, so as to be adapted to the popular mind, or should also embrace the philosophical explanation of these facts, so as to assume a scientific form? and, *fourthly*, whether it should proceed exclusively on the ground of “natural evidence,”

or avail itself also of the light of Revelation. A brief answer to each of these questions will serve at once to determine the plan, and to explain the *rationale*, of the arrangement which we propose to adopt.

The *first* of these questions demands our notice at the very threshold of the inquiry,—chiefly on account of a very singular coalition of apparently adverse parties, who, differing in all other respects, concur in this, that any thing like an effective and legitimate proof of the existence of God is impossible. On the one hand, the speculative Atheist, whether his infidelity assumes the sceptical or the dogmatic form, denies not only the validity of every extant proof, but the existence of any accessible body of evidence, or of any intellectual faculty, capable of affording the slightest rational ground for belief in God. On the other hand, the transcendental Idealist, and the sentimental Mystic, speak of such an “intellectual intuition,” such a direct and immediate “apperception” of God as is altogether independent alike of any process of reasoning, and of any external sign or manifestation in the shape of evidence; and they conclude that all argument on the subject is superseded by its self-evident certainty,—that a formal proof is impossible, just because it is superfluous. Wide as is the distance between these two extremes, there is a point at which they meet and coincide: they both concur in affirming that the existence of God *cannot be proved*, while only *one* of them adds that *it need not be proved*. Hence we hear it reiterated on every side, and sometimes in quarters where it might have been least expected, that the existence of God is not a topic for argument, but an object for faith; that if it be credible at all, it must be credible simply in the light of its own self-evidence; that it cannot be established by any process of reasoning; and that all

reasoning on such a theme weakens rather than confirms our convictions. Did we defer to the *dictum* of a recent writer whose erratic genius seldom fails to express itself in strong language, we should feel that we are engaging in a useless and even perilous task. "The Deity exists by a necessity of his own nature, and men will never cease to believe in his existence. The most impious act a human creature can commit, is the attempt to prove a fact so omnipresent and irresistible. He who asserts that there is no God *is a madman*: he who, by elaborate reasoning, endeavours to show that there is a God, *is a fool!*"*

We think it necessary to take this state of feeling into account, when we are entering on a Statement of the Evidence, both because we have reason to believe that it prevails to a considerable extent, not only among particular schools of speculative inquirers, but even in the mind of the Christian community, insomuch that the study of the "natural evidence" is distasteful to many, who have no doubt in regard to the truth itself; and also because we apprehend that there is a confused mixture of truth and error in the supposition from which it springs. It seems to have been supposed that, when we speak of *proving* the existence of God, we mean to do so by a long process of reasoning or argument,—a series of concatenated syllogisms, such as is sometimes employed in the department of pure science; and, on this supposition, proof has been deemed superfluous, on the very natural ground that there must surely be a shorter and more direct access to one of the most universal, as well as most important, convictions of the human mind. To a certain extent, we sympathise with this feeling; and were the supposition well founded, we might even

* MR M'CALL; article in "The People."

concur in the conclusion to which it leads. There could scarcely be a greater or more mischievous error than to represent the evidence for the being and perfections of God as so abstract or so complicated, that it could only be exhibited in a long chain of reasoning, or discerned and appreciated only by men of science. But when we speak of *proof* as either possible or necessary in such a case, our language is not meant to imply this. On the contrary, the process may be extremely short, consisting of a very few steps; it may take place spontaneously under the operation of the natural laws of thought, without our being distinctly conscious of a train of reasoning, and the evidence may be no sooner discerned than the truth is intuitively believed. There is much that is *intuitional* and *spontaneous*, both in the perception of the evidence and in the reception of the truth,—just as in every other branch of Ontology, whether it relates to our own existence, or the existence of our fellow-men, or the reality of an external material world. But in no case, so far as we can see, is there any *intuition* so direct and immediate, or any belief so spontaneous, as to be altogether independent of evidence. Our belief, for instance, in the existence of our fellow-men, and of their radical resemblance to ourselves in respect of intelligence and feeling, may be said, in a certain sense, to be intuitive; it is so natural and so inevitable, that we are scarcely conscious of passing through any process of reason in reaching it: and yet it springs, unquestionably, from certain *signs or manifestations* of thought and emotion in them, which are immediately discerned to be similar to those of which we are conscious in ourselves, and which are not equally displayed by any of the inferior animals. There is not only a spontaneous perception, there is also a real evidence,—an evidence which may not require, and may

scarcely admit of, a formal statement, but which is, nevertheless, the sole ground, and the sufficient justification of our belief. There is both a strong resemblance, and a radical difference, between the grounds of our belief in the existence of our fellow-men, and those of our belief in the existence of God. There is a resemblance, in so far as our belief, in both instances, depends on certain *signs* or *manifestations* which are discerned and interpreted as a natural evidence of the truth: but there is also a difference, arising out of the different nature of the evidence to which they respectively appeal. It is utterly inconceivable that any sane mind should either deny or doubt the existence of kindred beings around it, not because this truth is discerned without evidence, but because the *medium* is so transparent, and the facts so familiar and undeniable, that no one, except the systematic sceptic, will even profess to call them in question. It is otherwise with the doctrine which affirms the being and perfections of God. That doctrine may be as true in itself, and as certain in its evidence, as the other: but our belief in it, in so far as it depends on the unaided light of nature, rests on a variety of considerations which require to be considered and reflected on before their force can be duly felt. The evidence is of a kind that may possibly be overlooked and neglected by men immersed in the cares and business of life. Hence the necessity of directing their special attention to the natural evidence for the being and perfections of God. This necessity is not equally felt in regard to the grounds of certain other primary beliefs, partly because they are generated naturally and inevitably by the circumstances in which we are placed, and partly also because there is no temptation to deny or to doubt their certainty. Whereas, with reference to God, the evidence,

although equally conclusive, is not equally apparent or irresistible ; it is more liable to be overlooked or disputed ; we may neglect it, when we are engrossed with the pursuits of business, or even of science ; we may reject and spurn it, from a latent consciousness that Religion, if true, would bring us under obligations, and impose restraints, to which we are unwilling to submit.

These considerations, derived from the very nature of the case, are abundantly sufficient to vindicate any judicious attempt that may be made to illustrate the "natural evidence" for the being and perfections of God. It is an attempt merely to place the *facts of nature* before the *minds of men*, so as to call into action the principles of reason or the laws of thought to which Theology makes its appeal. It only remains to be added, that even were the grounds of our belief more intuitively discerned than we have supposed them to be, yet when these grounds are called in question,—when our belief itself is assailed by argument, or undermined by sophistry, there may be occasion for reasoning, if not to prove the truth, yet to disprove the objections which have been urged against it ; and this is, in point of fact, the reason of by far the larger amount of argument that has been employed on the side of Theism in its conflict with Infidelity. That argument has been directed, not so much to the object of *proving the truth*, for the *proof* consists mainly in a direct appeal to a body of "natural evidence," which depends on facts and is independent of argument,—but rather to the object of exposing the fallacies, and neutralising the objections of its assailants : and as long as there are Sceptics or Atheists in the world, so long must this warfare continue to be waged. In this respect, Theology has been called to encounter the same perils, and to pursue a similar course, with sound Philo-

sophy itself; for the same Scepticism which assailed our belief in the existence and providence of God, has equally called in question the evidence of our senses, the reality of an external material world, and the very possibility of proving any one conceivable truth. Its assaults were, in either case, met by argument; but by argument directed, not to prove by reasoning what neither required nor admitted of such proof, but to show that our beliefs rest on grounds that are impregnable to every such assault, and to neutralise the presumptions that might seem to lie against them. On these grounds we conclude, that a *proof* of the being and attributes of God, in the only sense in which we are concerned to defend it, may be alike legitimate and useful in itself; and that it may even be absolutely necessary, both for the production of an intelligent belief in the popular mind, and for the prevention or cure of Atheism, at certain critical stages in the course of speculative inquiry. It may be called an argument,—a proof,—or a demonstration; but it is nothing more than a statement of the evidence which exists in nature; and it consists in an investigation of the sources from which that evidence is derived, and the principles of reason on which its validity depends.

The *second* question,—whether, on the supposition of a proof being possible, it may be best conducted after the *a priori* or the *a posteriori* method,—may be differently answered according to the sense in which these phrases are understood. They are often used somewhat vaguely. Sometimes they denote a *process of reasoning*; at other times they describe merely the *source of data* on which that reasoning proceeds. In the former sense, an *a priori* argument corresponds to a process of “deduction” by which particular truths are derived from more general theorems which virtually comprehend them;

while an *a posteriori* argument corresponds to a process of "induction" by which we rise from particular facts to general laws. In the other sense, they are applied to denote, not a process of reasoning or a method of argument, but merely the supposed *origin of the constituent elements of thought*. Thus, any element of thought is said to be an *a priori* principle, when it is supposed not to be given in "experience," but to be furnished by "reason:" and so, any other element of thought is characterised, with reference to its source or origin, as an *a posteriori* idea, when it is supposed to be given, not by reason, but by experience. The "ideas of reason" are thus distinguished from the "ideas of experience," and any argument which proceeds mainly on the former, is often called an argument *a priori*, while that which proceeds mainly on the latter is as often said to be an argument *a posteriori*.

After the most serious reflection, we admit the distinction, both between the *inductive* and the *deductive* methods of reasoning, and between the *a priori* and the *a posteriori* elements of thought: but, in applying that distinction, we are prepared to maintain that there never has been, and never can be an argument so purely *a priori* as to have no element in it derived from the "ideas of experience," nor an argument so purely *a posteriori* as to have no element in it derived from the "ideas of reason." There is a real and a wide difference between the two methods of reasoning; but that difference does not consist in the entire exclusion from either of ideas derived both from reason and experience. If you call that element of thought which is furnished *from within* an *a priori* principle, and that other element which is furnished *from without* an *a posteriori* idea, you may thus discriminate between the two; but if you attempt to

disjoin them, or to found an argument, directed to any practical object, exclusively on either, the attempt must prove abortive, for "what God hath joined together," in the very constitution of our nature,—in the co-relation of *subject* and *object*, "no man may part asunder."

If by an *a priori* principle, you mean an element of thought furnished from within, and springing immediately and spontaneously from the structure and laws of the mind itself,—then there is an *a priori* element, not only in the process of abstract reasoning, but in the simplest case of induction,—in the most common act of perception,—and even in sensation itself,—*it is involved in all "experience."* In *sensation*, which is often supposed to be merely empirical, there is really an *a priori* element; it is not the exclusive product of any external cause, it is the joint product of subject and object, of matter and mind; it depends as much on the constitution of the one as on the properties of the other; and hence both Kant and Mill have shown, that the theory, which represents the mind as purely passive in sensation, proceeds on a partial view of the conditions required, and that the laws of our organization and mind are as much concerned as the properties and influence of outward objects. And if there thus be, on the one hand, an *a priori* element in every judgment or argument *a posteriori*, it is equally evident, on the other hand, that the converse is also true,—that there is an *a posteriori* element in every *a priori* proof. Mr Mill has endeavoured to show, that the whole force of the syllogism depends on a prior "induction,"—that every process of deductive reasoning presupposes some idea derived from experience,—and that geometry itself rests ultimately on "definitions," such as are possible only on the supposition of our having observed figures and magni-

tudes.* In short, human knowledge, in all cases without exception, depends on the combination of two elements, —a certain “rudimentary experience,” and some mental law or principle of reason; and in the absence of either, knowledge is non-existent, and reasoning impossible.

Let us apply these general views to the special subject of our present inquiry. It appears to us that neither the *a priori* nor the *a posteriori* proof of the being and attributes of God could be valid or conclusive, did it confine itself either to the facts of experience, or the ideas of reason *exclusively*, and that both must be combined in any effective statement of the evidence. This remark is abundantly confirmed by the result of all the attempts that have ever been made to construct a proof out of materials derived exclusively either from reason or experience. It has been well said, that Descartes’ celebrated arguments for the existence of God “have all been sometimes called by courtesy *a priori* arguments, though some of them are as much deductions *a posteriori* (the elements, however, being from the mind, not from the material universe) as those which are usually so called; *i.e.*, they are from effects to causes, and from effects manifesting a certain nature to a cause manifesting a similar nature.”† We cannot advert to all the examples; but we may select one, which all competent judges will admit to be, in many respects, the most memorable effort of human reason to elevate itself, by pure thinking, to the knowledge of Him who is infinite and eternal. The “Demonstration of the Existence of God” by Dr Samuel Clarke, is one of the noblest monuments of human thought. It is the product of a mind at once acute and profound; and whatever defects may be ascribed to it, by the rigorous

* J. S. MILL, “System of Logic,” I. 198, 226, 249, 297, 301, 336, 393, 534.

† Edinburgh Review, January 1852, p. 36.

criticism of reason, or the sceptical criticism of un-reason, it will ever retain a permanent value in the eyes even of those who decline to adopt or sanction it, on account of that portion of truth which unquestionably belongs to it. It is characterised throughout by that vigorous intellectual energy, which made Clarke a fit associate and correspondent of Newton, and Leibnitz, and Butler.

On a careful analysis of this celebrated argument, it will be found that it may be divided into *two* great branches,—and that in *each* of these, it depends entirely for its validity on the combination of an empirical fact with a law of reason,—in other words, on the conjoined force of the *a priori* and *a posteriori* elements. In the *first* branch, which proceeds on what Kant would have called the fact of “unconditioned existence,” experience is called in, but only to the extent of postulating “the existence of something;” and then, on the ground of this fact of experience, the author rises, by the aid and under the guidance of an established law of thought, to the inference that something must have existed from all eternity, or that there must be in the universe some Being that is *necessary* and *self-existent*. He next proceeds to *deduce* from the idea of a necessary and self-existent Being certain conclusions respecting its nature, and the attributes which must belong to it. Without enlarging on this part of the proof, in which he founds on mere “unconditioned existence,” as Baronius says a Metaphysician ought to do,*—let us turn to the *second* branch of his argument, in which he attempts to prove the intelligence, wisdom, goodness, and other perfections of God. In *this* he founds, not on bare existence as unconditioned, but on existence *so* conditioned as to afford evidences of

* BARONIUS, “Metaphys.,” p. 2,—“Metaphysica contemplatur ens quòd ens est.”

design; and is compelled again to have recourse to the combined strength of reason and experience. In proving his *eighth* Proposition,—that the Supreme Cause and Author of all things must be an Intelligent Being, he frankly admits that this, which, nevertheless, is said to be the main question betwixt us and the Atheists, “does not so obviously and directly appear to us by considerations *a priori*; because, through the imperfection of our faculties, we know not wherein Intelligence consists, nor can see the immediate and necessary connection of it with *self-existence*, as we can that of eternity, infinity, and unity. But *a posteriori*, almost every thing in the world demonstrates to us this great truth, and affords us undeniable arguments to prove that the world, and all things therein, are the effects of an Intelligent and Knowing Cause.” The argument, considered as a pure *a priori* speculation, thus breaks down in the hands of its ablest advocate, and that, too, just at the most critical point,—the point which, by his own admission, is “the main question betwixt us and the Atheists.”

It is only fair to add his own candid estimate of the comparative value of this kind of proof, as that is frankly stated in a letter appended to his work. “The proof *a posteriori*,” he says, “is level to all men’s capacities, because there is an endless gradation of wise and useful phenomena of nature, from the most obvious to the most abstruse, which afford proof of the being of God to the several capacities of all unprejudiced men; and this is what, I suppose, God as a Moral Governor expects that moral agents should be determined by. The proof *a priori* is, I believe, strictly demonstrative; but, like numberless mathematical demonstrations, capable of being understood by only a few attentive minds,—because it is of use only against learned and metaphysical difficulties,

and, therefore, it must never be expected that this should be made obvious to the generality of men, any more than Astronomy or Mathematics can be." This graceful admission is satisfactory, so far as it goes; but the fact, that such minds as those of Butler, Reid, Stewart, Brown, Brougham, Whately, and Chalmers, were not convinced, after the most careful study, of the validity of this Demonstration, may be regarded as a sufficient proof that not only "the generality of men," but some even of "the few attentive minds," may desiderate something which they can by no means find in it.

And yet we are very far from saying that this elaborate argument deserves the ridicule with which it has sometimes been treated. On the contrary, we hold that it does contain the substance of a valid proof, both from *conditioned* and *unconditioned* existence; and that its chief defect lies in the professed attempt to prove every thing *a priori*, when, from the very nature of the case, we are under the necessity of combining "the principles of reason" with "the facts of experience." Still it has a permanent and imperishable value, as one of the loftiest monuments of human thought: and the *deductive method* which it pursues is, and ever will be, applicable to some topics, included in the general subject, which cannot be so well or so clearly proved in any other way. The masterly critique by Dr Waterland* amply proves the truth of this opinion. He rejects the proof, for reasons which are distinctly and forcibly stated; but he adds—that "it may be legitimate to argue *a priori* from *existence* to *attributes*, or from *one* attribute to *another*,"—"that the Divine existence may be considered in the first place, and after that the attributes, in their

* LAW'S "Inquiry into the Ideas of Space, Time, Immensity, and Eternity," *Appendix*, p. 197.

most natural order of conception ; and when they are so placed or ranked, we may argue from them in that order, and such arguing may, without impropriety, be styled arguing *a priori*, as arguing from something *antecedent* in natural order of conception, to something *subsequent* in conception to it. And this kind of arguing *a priori*, which is reasonable, ought not to be confounded with the other, which is manifestly ὑστέρον προτερον, and palpably absurd.” *

The *third* question,—whether, on the supposition of a proof being both possible and legitimate, it should consist chiefly of those *facts* which are patent to all men, or should also embrace the *philosophical explanation* of these facts?—may be briefly answered by saying, that the two methods are not incompatible with each other, or mutually exclusive, and that both may be useful to different orders of mind. The general community will always be most impressed by that evidence which arises from what Fenelon has happily called “le coup d’œil,” or “l’aspect general de l’univers,”—by the *facts* which they observe in nature, rather than by the *philosophical explanation* of these facts. The order which pervades the whole, at least, of the physical world,—the regular succession of the seasons,—the stability of the laws which control such tremendous forces as are ever in action,—and the manifold beneficent uses to which they are evidently subservient,—these and similar facts, patent to the observation of all, constitute the strength and substance of what must ever be the popular argument for

* The most recent attempt to revive the *a priori* argument in our own country, occurs in two treatises by MR GILLESPIE ; the *first* containing an argument, supplementary to that of Clarke ; the *second*, a Disquisition on the necessary existence of the Deity, in reply to the strictures of “Antitheos” of Glasgow. Mr Gillespie’s argument was ably reviewed by Professor Macdougall in a paper now included in his “Contributions.”

the being and perfections of God. No error could be more fatal, or less pardonable, than that of any attempt to supersede or disparage it, by insisting on the *exclusive* validity of a more scientific proof, founded on the philosophical explanation of these facts. The truth is, *the facts are sufficient, with or without a philosophical explanation of them.* They were found sufficient even when they were associated with theories which were subsequently known to have given an explanation that was false. It is deeply interesting, in this connection, to observe that the older writers on Natural Theology, who lived before the Copernican system of astronomy had gained, through the labours of Newton and his successors, its present unquestioned ascendancy, did, nevertheless, make very much the same use of the phenomena of the heavens when the earth was supposed to be the centre around which the sun, moon, and planets revolved, as is made of them still, when we know that the sun is the centre, and the earth a revolving planet. We find that not only Cicero of old, but Howe, Fenelon, and Ray, in more modern times,—proceed on the palpable facts of nature, while they were either in error, or in doubt, in regard to their right philosophical explanation; and that some of them,—such as Ray,—give their readers the option of either alternative, without the slightest fear of weakening the proof. The reason is plain: the evidence arises from *facts of fitness*, or examples of *design in adapting means to ends*, which may be clearly discerned, and easily interpreted, by the most untutored mind. That evidence does not depend, in so far as its substance or strength is concerned, either on the philosophical explanation of nature, or on the metaphysical analysis of our own laws of thought; it rests on the palpable facts of experience, and the first principles of reason. “The

belief of the existence of a Deity," says Estlin, "does not depend upon any deep, abstruse, or metaphysical modes of reasoning. If there be any first principles to which the human mind necessarily recurs as the foundation of all its reasoning, and the ground of its belief on any subject, these establish the doctrine beyond the possibility of its being shaken." * "I shall only insist," says Ray, "on those things which every understanding may discern, the appearances which every eye sees, or the observations of fact which must occur to the most inattentive of mankind who has but common sense; for even these will be sufficient to establish the great truth upon."† And M. Jaquelot, an able and useful writer upon this subject, is equally explicit:—"J'ai toujours crû, que la Divinité avoit des preuves convaincantes de son existence, pour tous les hommes, sans qu'il fût nécessaire de les faire passer par le canal de l'École, et d'être Philosophe, pour en sentir la force et le poids."‡

The "popular evidence" is valid, independently of the "philosophical explanation." For, look to the marvellous provision for watering the earth,—the constancy and regularity with which it acts within certain assignable limits,—and the manifold purposes which are served by it in the support of vegetable and animal life; and who does not see in the palpable facts themselves an evidence of *design*, although he may be utterly ignorant of the science of Meteorology? Look, again, to the nutritive properties of certain alimentary substances,—the provision which is made for their production, for the use of man and beast,—and their relation to the appetites and organs of so many diversified tribes; and who does not

* MR ESTLIN, "The Nature and Causes of Atheism," p. 10.

† MR RAY, "The Wisdom of God in Creation," I. 28.

‡ M. JAQUELOT, "Dissertation," p. 4.

see in the palpable facts themselves an evidence of *design*, although he may be utterly ignorant of the science both of organic and inorganic Chemistry? Look, again, to the alternation of day and night, and the corresponding alternation of labour and repose,—to the succession of the seasons, and the corresponding succession in the growth, maturity, and decay of terrestrial vegetation; and who does not see a plan and a purpose, although he may be utterly ignorant of the science of Astronomy, and the explanations which it affords of the facts observed?

But while the popular evidence is perfectly valid without the aid of science, yet science, in its progressive discoveries, may furnish some fresh illustrations, or some confirmatory proofs, of the wisdom of God in nature, which may impart much interest to the study of the “natural indications,” and which may be addressed, with great effect, to the higher order of speculative minds. They are not indispensable, but they may be highly useful. They may serve a noble end if they prove merely that Philosophy is not adverse to Faith; that the deeper we search into the mysteries of nature, the more do we see of the wisdom which pervades it; and that the torch of science serves only to bring into view some additional facts, which might either have escaped our notice, or have been imperfectly apprehended, on a more general survey of the works of nature. Hence the value of those contributions to the argument which have been furnished by such writers as Whewell and Prout, Brewster and Bell, who have nobly proved, by lesson and example, that science is not the rival, but the handmaid,—not the antagonist, but the auxiliary of religion.

The *fourth* question,—whether the proof should proceed exclusively on the ground of “natural evidence,” or avail itself, also, of the light of Revelation? and how far

these two may admit of being either wholly separated, or harmoniously combined?—is one which, in the present state of speculation, appears to us to possess great practical importance. These two sources of evidence are distinct and, to a certain extent, independent; yet they are so closely related to each other, that, in the experience of every inquirer in a Christian land, the streams which flow from them are insensibly blended together, and exercise a concurrent influence over his mind. Various views have been taken of the relation subsisting between them, and of the order in which they should be severally discussed, or may be most logically applied. Some have held that the “natural evidence” for the being and perfections of God must necessarily occupy the first place, and is entitled to claim precedence over every other proof,—on the ground that the existence of God is presupposed in the very idea of a Revelation, and that the evidence for Revelation itself depends on this fundamental truth. Others have held that the chief proof, without which no other would be conclusive, or at least effectual in producing conviction, arises from the testimony of Scripture, which narrates the history of the creation of the world; and that it is only in the light of revealed truth that Nature becomes sufficiently luminous to afford either proof or illustration of the simplest doctrines of Theology. These two opposite tendencies are severally exemplified in the treatises of Principal Brown and Archbishop Sumner,—the “Essay on the Existence of a Supreme Creator,—and “The Records of Creation.” Principal Brown follows the line of the “natural evidence,” making only an occasional reference to the contents of Scripture; while Dr Sumner founds mainly on the authority of Scripture, and especially on that of the Pentateuch. The former expressly states, that “God’s existence is presupposed by Revelation, and

cannot consequently be proved in the first instance by Revelation," and that "to derive from the Sacred Scriptures any evidence of the existence of Deity, may have the appearance of arguing in a circle,—for unless the existence and government of God be previously granted, the sacred oracles, as proceeding from Him, can have no authority. If the fundamental point of His existence be contested, it is vain to maintain that their sanction proceeds from this source."* Dr Sumner, again, directs his argument mainly to the establishment of the credibility and truth of the Mosaic narrative of the creation. He anticipates the objection that, by following this line of proof, "it will lead us away from Natural Theology;" but he adds, "if it does so, we are only following the course to which the subject itself leads every reflecting mind; for, although Nature gives a clear testimony, she speaks in vain to almost all. The harmony and design of the universe afford an unanswerable argument from final causes; but the God of Natural Theology will never be any thing more than the dumb idol of Philosophy,—neglected by the philosopher, and unknown to the multitude,—acknowledged in the closet, and forgotten in the world."†

With all deference to these venerable writers, we think that the two lines of proofs are neither incompatible nor mutually exclusive;—that they admit of being,—not, indeed, identified,—but harmoniously combined;—and that, when thus considered and treated, they constitute two independent, but concurrent, witnesses to the Truth. The reason which Dr Brown assigns for his opinion amounts in substance to this,—that God's existence is presupposed by Revelation, and cannot consequently be proved in the first instance by Revelation.

* DR L. BROWN, "Essay," L xiii, 145.

† DR SUMNER, "Records of Creation," ix.

But there is both room and need for careful discrimination here. We must distinguish between *the contents*, and *the authority* of Scripture. In its *contents* we may find a valid evidence of the being and perfections of God, such as is independent, in the first instance, of its inspired *authority*. In its miracles and prophecies,—those manifest tokens of superhuman wisdom and power,—in its sublime doctrines and pure morality, and above all, in the life and character of Christ, “the brightness of the Father’s glory, and the express image of His person,” we may discern such a manifestation of God as may be even more striking and impressive than any that can be found in the ordinary course of nature. Besides, God is the Author, as we believe, both of Nature and of Revelation. Why should we deal differently with these two volumes? If the existence of God be presupposed by Revelation, is it not equally presupposed by Creation? and is not the whole Theistic argument directed to show the logical necessity of this presupposition? Each of the two volumes presupposes an Author, and the character of the product may, in either instance, convince us of His being as well as of His perfections. If God has “magnified His Word above all his name,” is it conceivable that it should have no bearing on the manifestation of Himself? Is it legitimate to say, that Creation exhibits evidence sufficient to make God known as the Creator, and may it not be equally legitimate to say, that Revelation exhibits evidence sufficient to make God known as the Revealer? The process may be longer, by a single step, in the one case than it is in the other; but assuredly it is neither less logical nor less conclusive. “The miracles and prophecies recorded in Scripture were intended, indeed, to prove a particular dispensation of Providence—the redemption of the world by the

Messiah: but this does not hinder but that they may also prove God's general providence over the world, as our Moral Governor and Judge. And they evidently do prove it; because this character of the Author of Nature is necessarily connected with, and implied in that particular revealed dispensation of things. . . . So that, indeed, natural religion seems as much proved by the Scripture Revelation, as it would have been had the design of revelation been nothing else than to prove it." * In all cases, it is by a *manifestation of His perfections* that God maketh himself known; and through whatever medium, whether of Nature or Revelation, that manifestation may be made to us, it affords valid evidence of His existence, as well as of His character. Accordingly Dr Brown afterwards admits that "collateral proofs of Deity may be drawn from the evidences of extraordinary power, wisdom, and goodness, manifested in the economy of Redemption;" and, while he insists chiefly on the "natural evidence," he states more shortly some of the proofs "which are derived from the sacred oracles."

Dr Sumner does not object to the "natural evidence" on the ground that it is either inaccessible or inconclusive; on the contrary, he admits that "nature gives a clear testimony," and that "the harmony and design of the universe afford an unanswerable argument from final causes;" but he objects to the *sufficiency* of Natural Theology, as inadequate, without a Revelation, to impart such a view of the character of God as is necessary for the ends of practical Religion. So far every Christian Theist will cordially concur with the venerable Prelate: but the independent study of the natural evidence may be carried on concurrently with the equally independent study of Scripture; and *both* may be necessary to impart

* BUTLER, "Analogy," p. II. c. i.

that breadth to our conceptions and that strength to our convictions which are indispensable to an enlightened and elevated faith.

There are two considerations which seem to imply, not only the propriety of combining, but also the impossibility of separating, these distinct proofs. The *first* is, that, according to our belief, they were both coeval with the origin of our race. God never "left himself without a witness" in Nature; nor did He withhold a witness by Revelation from the fathers of the human family: so that the world has never been placed in a condition to test, by experience, the question,—how far, by the unaided light of Nature, the reason of man could have risen to the knowledge of God. The *second* is, that even at the present day, it is neither by a series of considerations altogether independent of Revelation, nor yet by a mere proof of the credibility of the Mosaic narrative, that reflecting minds are impressed with the conviction of God's existence, but rather by the conjoined light of Nature and Scripture, and the concurrent influence, often undistinguishable, of reasons derived from both. A *proof*, to be complete in itself, and adapted to the existing state of society, must exclude no ray of light from whatever quarter it may emanate, and overlook no fragment of evidence in whatever department it may be found; and such a proof may be constructed as shall conduct us to our ultimate conclusion by a series of successive steps, each firm and stable, and all leading to our final resting-place,—in the knowledge and belief of God.

Never, perhaps, was the relation which subsists between the natural evidence and the inspired word more correctly or more sublimely expressed than by the afflicted Poet, who wrote during a lucid interval on the walls of

his cell, with a piece of coal which has been well described as “a live-coal from off the altar,” the following lines:—

“Tell them, I AM, Jehovah said
To Moses, while Earth shook with dread,
And, smitten to the heart,
At once,—above, beneath, around,—
All Nature, without voice or sound,
Replied, O Lord ! THOU ART !”

Guided by the views which have been stated, we propose to avail ourselves of *all* the sources of evidence that may seem to promise any contribution either to the proof of the Existence, or to the illustration of the Perfections of God. We hope to combine without confounding, and to unite without identifying, the various elements on which the completeness of the proof depends; and to exhibit them, *seriatim et gradatim*, while we endeavour, at every successive stage, to estimate the exact value of every particular contribution to the general evidence. For the argument in favour of the being and perfections of God as the Creator and Governor of the world, is neither, on the one hand, a process of *deductive* reasoning, in which particular truths are inferred from a more general truth, which implicitly comprehends them all; nor yet a single, solitary *induction*, depending on any one law of reason, or any one class of facts: it is rather a *series of inductions*, followed by a corresponding *series of inferences*, each resting on its own appropriate evidence, and contributing something to the general proof. The *inductive process* may admit of, and may even require, for its ultimate completion, a supplementary *process of deduction*, from truths previously established.

It is well known that the spontaneous operations of the mind are much more rapid and summary, than any exposition can be of the reflective processes of thought; and that a conclusion which is instantly, and, as it were,

intuitively, reached by the former, as soon as the evidence is discerned, may not admit of being verified or proved by the latter without a more protracted process: it may require an articulate statement of various facts and principles, which were all really present, although they might not be consciously perceived or accurately discriminated, at the time when the conclusion was embraced. Hence the necessity of a gradual and progressive advance in the Statement of the Evidence; and hence, also, the propriety of commencing with the simplest and most elementary part of the Proof, and of proceeding thence to the next higher in order, and so on, until, by a series of such steps, we reach the most elevated platform to which the human mind can hope to attain.

In accordance with this general plan, we shall divide the proof into *six* parts.

The *first*, proceeding on the mere *fact of Existence*, as unconditioned, and guided by the principle of "causality," or the law of "efficient causes," establishes the existence of a necessary, self-existent, and eternal Being, —without determining, in the first instance, the nature and character of that Being, or deciding whether it be God or the Universe.

The *second*, proceeding not on the mere fact of existence, but on the existence of Mind,—an existence *sui generis* which is immediately revealed in consciousness, and which is conditioned or characterised by the well-known properties of perception, intelligence, and voluntary activity, and guided also by the principle of "causality," or the law of "efficient causes," demonstrates the necessity of supposing, either an infinite series of derived and dependent intelligences, or the existence of a Supreme Intelligence, from which every inferior Mind derived its being and its powers.

The *third*, proceeding on the phenomena of Conscience, and guided by the instinctive idea of law and authority, establishes the existence of a living personal God, Holy, Just, and Good, and His character as a Lawgiver, Governor, and Judge.

The *fourth*, proceeding also on the fact of Existence as conditioned, but referring to a different class of phenomena, surveys the constitution and course of nature as made known to us by experience and observation; and guided by the principle of "teleology," or the doctrine of "final causes," establishes the existence of an intelligent, wise, and powerful First Cause, whose perfections are displayed alike in the Material, the Intellectual, and the Moral Worlds.

The *fifth*, proceeding on the facts of History, whether these have been traditionally transmitted by oral testimony, recorded in writing and other memorials, or inferred from the existing state of the earth and its geological calendar, establishes the fact of a creation, by demonstrating the comparatively recent origin of the tribes and races by which the world is now inhabited, and especially of the science and civilization of the human race.

The *sixth*, proceeding on a survey of the whole natural evidence, offers the complement and sum of the Proof, and seeks to make all the scattered rays of light converge to one focus, so as to illustrate the majestic, yet mysterious character of Him who is the sole Creator and Supreme Governor of the world.

CHAPTER II.

THE *FIRST* PART OF THE PROOF,—FROM THE FACT OF EXISTENCE.

WE are far from thinking that, from the bare fact of Existence considered as unconditioned, or without reference to the properties of being, the human mind is capable of rising *per saltum* to the conception of a supreme, intelligent, and living First Cause. But we single it out, and place it on the foreground of our proof, both because it affords a solid foundation for certain inferences which have an important bearing on our general argument, and also because it is equally admitted by all our opponents, and may, therefore, be regarded as a ground that is *common* both to the advocates and the antagonists of Theism.

For it is important to remark, that there is a certain *common ground* between the Theist, the Atheist, and the Pantheist. There are some necessary truths, or irresistible convictions, which are and must be equally admitted by them all: and these truths or convictions,—whether they be referred to facts existing in nature, or to first principles belonging to reason, or to a relation established between the two,—will be found to have a close connection with the Evidence of Natural Theology.*

* DR CUDWORTH, "Intellectual System," I. 266, 268.

MR HOWE, "Living Temple," I. 105, 167.

MR MORELL, "History of Philosophy," I. 176.

That we exist, and that other beings exist around us, is self-evident and undeniable: it follows,—according to a principle or law of reason which the Atheist himself cannot dispute,—that some being *must* have existed *from all eternity*, and must have existed *uncaused*, that is, must have been *self-existent*. Once admit the real existence of *any* being at the present hour, and we are shut up, by a necessary dictate of our own reason, to acknowledge the eternal self-existence of *some* being. It may not be a living personal God, whose existence we thus acknowledge,—it may be the universe or the natural world; but the *eternity* and the *self-existence* of some being are truths which cannot be denied, since they follow necessarily from that fundamental law which compels us to believe, that whatever begins to be must have a cause, and that whatever beings now exist must either have been created, or, if uncreated, must themselves be self-existent and eternal.

These truths are self-evident, and are admitted equally by the Theist and the Atheist. They constitute the ground which is *common* to both. The Theist accounts for the present order of nature by ascribing it to the creative will of an intelligent and all-powerful First Cause. The Atheist attempts to account for it also, and he does so, not by affirming that it sprung into being *spontaneously without a cause*, but by representing nature herself as *an eternal existence*,—variable in its forms, but invariable in its essence,—subject, in its individual parts, to the law of decay and reproduction, or even in its gradual evolution to the law of progressive development,—and exhibiting, therefore, manifold varieties and vicissitudes, but remaining, in its primordial elements and essential properties, “the same yesterday, and to-day, and for ever;” a constitution of whose origin no account can or need be

given, since it had no commencement and can have no end. We shall not stop to inquire whether an “infinite succession” of Beings, each dependent on others which preceded it, each caused by something going before, while the series, as a whole, is uncaused, because unlimited, be or be not a conceivable or possible supposition: we are inquiring at present, not into the *truth*, but into the *meaning* of the theory which Atheists must maintain; and it is evident that, as they are equally bound with us to account for the constitution and course of nature, so they, not less than we, are shut up to the acknowledgment of a necessary, uncaused, self-existent, and eternal Being. It is a truth in which both parties must alike concur. For “the Theist and the Atheist,” says Principal Brown, “agree in this one principle, that something must have existed from all eternity by the necessity of its own nature; they differ only in regard to the application of it, and the conclusion to which it leads.” And Dr Sumner adds, “That something must have existed from all eternity, is perhaps the only truth established by Metaphysics, which no sophist has been subtle or hardy enough to impugn.”*

We hold it to be of great practical importance that we should survey this common ground, in the first instance, before proceeding to the peculiar proofs of Theism, —were it for no other purpose than to show that the truths which must be admitted by the Atheist himself involve the same profound mysteries, which are often regarded as insuperable objections to religious belief. All that is most inscrutable and unfathomable in the first truths of Theology, is equally inseparable from the Atheist’s creed,—for he, too, has a creed respecting Nature, if not respecting God. He believes, not less

* DR BROWN, “Essay,” I. 41. DR SUMNER, “Records of Creation,” I. 7.

than we, and he cannot but believe, in an Eternal Past. He believes, and cannot but believe, in self-existent, underived, and everlasting Being. The sublimest mysteries of human thought meet and centre in his system, not less than in that of the Christian Theist,—with this only difference, that he believes in the eternal existence of Matter,—we, in the eternal existence of Mind; he believes that Nature is the self-existent, underived, and eternal being,—we, that Nature is a created product, and God its Author and Lord. But *self-existence* and *eternity* are involved in the belief of both.

Now suppose the case of a thoughtful, but, perhaps, unlettered man, prompted by a secret intellectual instinct to inquire into the origin of his being, and of the system of which he forms a part. He is conscious of his own existence,—he is certain of the existence of other beings on every side of him: he sees that they are neither permanent nor unchangeable, but subject to the law of decay and reproduction,—while *change* itself is *regulated*, so as to maintain the average order and stability of Nature; he considers these familiar facts, and as soon as he realises the idea of *existence* of any kind, he is already on the verge of a great Mystery,—his thoughts are carrying him out towards the Infinite! For it is a fundamental law of reason,—a law not analysed, not even distinctly conceived of, by the unlettered man, but acting as incessantly on his mind as on that of the most reflective philosopher,—that nothing can begin to be without a cause adequate to its production, and, therefore, that being of any kind necessarily presupposes the existence of some being, *the same or different*, from all eternity. The same principle of reason which teaches us that every *change* or *event* occurring in nature must have had a cause, is equally applicable to every *substance* or *being*

existing anywhere in nature,—with this only difference, that, in the former case, the phenomenon is obviously an *effect*, while, in the latter, it *may* not be an effect, but an *underived existence*; still, in either case, the principle holds good, that nothing can begin to be without a cause; since if we say of any thing that it *exists*, we are shut up to the necessity of believing, either that it had a cause, or that it never began to be, but was self-existent and eternal. The thoughtful man, therefore, yielding to the force of this intellectual law, which enters, as a formal condition, or constituent element, into every train of reasoning, finds that he can neither avoid nor resist the conclusion that *some being must have existed from all eternity*. This is the first firm stepping-stone in the path which leads him onward and upward towards Theology. Let him scan it well: let him probe its foundations,—let him test its strength,—and let him not advance a single foot-breadth further, until he has mastered, or rather until he has been mastered by, this fundamental and most impressive truth. Here he stands already on the borders of a profound and awful Mystery. His mind has been brought into contact with the Infinite. By a necessity of his nature, he is constrained to know and to believe the reality of Being uncaused, underived, self-existent, and eternal. The *nature* of that being is yet undetermined, but the *necessity* of it is an intuitive conviction of reason, and that conviction, whether it shall issue in Theism, Atheism, or Pantheism, involves all that is most mysterious and incomprehensible in the first truths of Religion. He will not, then, be scared by the sneers or sarcasms of the scoffer, when he ridicules the idea of the finite mind grasping the infinite, or of frail and mortal man seeking a knowledge of the Eternal. He feels that he cannot avoid the truth,—that in God or in Nature, in Religion

or in Atheism, he must confront Being self-existent and everlasting; for his own existence, and the existence of every thing around him, involves the necessary truth that some being, *the same or different*, must have existed from all eternity. And with this conviction deeply seated in his soul, he can rise above the charge of presumption as well as the fear of ridicule, because he feels that, whether he will or no, the Infinite and the Eternal must form a constituent element of his thoughts.

“Hast thou ever,” says Coleridge, “raised thy mind to the consideration of *Existence*, in and by itself, as the mere act of existing? Hast thou ever said to thyself thoughtfully, ‘IT IS,’ heedless in that moment whether it were a man before thee, or a flower, or a grain of sand; without reference, in short, to this or that particular mode or form of existence? If thou hast indeed attained to this, thou wilt have felt the presence of a Mystery, which must have fixed thy spirit in awe and wonder. The very words, ‘there is nothing,’ or there was a time when ‘there was nothing,’ are self-contradictory. There is that within us which repels the proposition with as full and instantaneous a light, as if it bore evidence against the fact, in the right of its own eternity!” *

It may seem, indeed, to be a very great and sudden transition which we make, when from the bare fact of existence, we ascend at once to a belief in necessary, self-existent, and eternal being. What are we, it may be asked,—the creatures of a day, whose observation is limited to a mere segment of space, and whose experience is confined to a mere point of time,—that *we* should either think or speak of the Infinite and the Eternal? And there might be the force of truth, as well as the

* S. T. COLERIDGE, “The Friend,” III. 202.

point of antithetic contrast, in the question, were all our knowledge derived from *experience*, in that miserably narrow sense of the term which includes only “the facts of observation” without the “laws or ideas of reason.” But it may serve to dissipate this prejudice, as well as to expose the ignorance from which it springs, if we advert for a little to the nature and origin of our ideas of Immensity and Eternity. The objects of these ideas are vast and incomprehensible; they far transcend our highest powers of thought; they stretch still further beyond the range of our limited experience; and hence we are tempted to doubt whether we can know them at all. But whence comes this feeling of doubt or hesitation? Does it not spring from the very grandeur and magnitude of those same ideas which are supposed to be so inaccessible,—ideas which have a real existence in our minds, although they are felt to be greatly mysterious, and which are apprehended and appreciated by all, although they far transcend the lessons of mere sensible experience? What are they? and whence are they derived? When you tell me that *a finite being cannot comprehend the Infinite*, that the “creature of a day” cannot “by searching find out the Eternal unto perfection,”—you remind me of a great truth, if it be your purpose to say that God is incomprehensibly great and ineffably glorious: but, in doing so, you make use of terms which betray a knowledge such as you are anxious to disown; you speak of Immensity and Eternity as ideas familiar to your own minds, and as if you knew somewhat of their import,—nay, your very objection proceeds on the assumption that you *do know that* which, nevertheless, you seek to prove *cannot be known!* Your argument would be good and valid, did it amount only to this, that we know enough of the Infinite and Eternal to be con-

vinced that they are, and ever must be, *incomprehensible* by any finite mind : but to this extent there is no controversy between us,—we are entirely agreed ; the only difference between us consists in your holding that we *can know nothing* of Immensity and Eternity, while, with flagrant inconsistency, you found on the very *import of these terms* in attempting to disprove the possibility of Religious knowledge.

The ideas of Immensity and Eternity, however their origin may be accounted for, are indestructible elements of human consciousness,—they are connatural to the human mind, they are co-extensive with the human race. They spring up naturally and necessarily in every bosom when its intellectual faculties come into operation ; and they can no more be banished from our thoughts than the consciousness of our own existence. We see but a small part of Space, and we live in a short span of Time ; but in regard to both, we rise, from a partial and limited experience, to the conception of the Infinite and Eternal ; and these ideas, great and incomprehensible as their objects are, take their place, invariably, among the universal and imperishable elements of human thought. Nor is this the only instance in which the conclusions of reason transcend the *data* of sensible experience, or in which the mind rises, by its own inherent energy, from the known to the unknown,—from the particular to the universal,—from the contingent and relative to the necessary and absolute. It is not an anomalous instance ; it is only a striking specimen of a class of cases of a similar kind. Take a few examples :—

A single experience of pleasure enjoyed, or of pain endured, from contact with any particular object, will lead us ever afterwards to regard that object with desire or aversion ; and why ? Not solely by reason of the laws

of our sensitive nature, although these are concerned in the result, but also by reason of an intellectual-law which comes into operation *on occasion of that experience*, and by which we are taught to believe and expect that the same object will affect us in the same way at all other times; or, in different words, it enables us to rise from a particular fact to a general conclusion, and to reach the stupendous height of a firm belief in the constancy of Nature!—Again, we acquire through the senses an idea of figure and magnitude; but no sooner is that idea formed, than immediately the Mind, in the exercise of its own faculties, subject only to their natural laws, generates a Mathematics that is purely ideal,—having no further dependence on sensation or experience, and no connection even with any material existence; yet intuitively certain, and absolutely necessary; capable of rigorous demonstration, and applicable universally throughout all Space and all Time; insomuch that man, having once obtained the most elementary ideas of figure and magnitude, may draw forth from his own mind a system of abstract Science, which will hold true everywhere equally among all the suns and systems of Astronomy, and which will be equally evident and certain to every intelligent being in the universe!—Again, we acquire from our most familiar consciousness an idea of *moral distinctions*; and by a law similar to that which generates Mathematics, we arrive at a Science of Ethics, which is also felt to be universal, eternal, and immutable; a science imperfect, it may be, in its development, and still less perfectly comprehended and applied; but, in its first principles, intuitively certain, and universally binding: insomuch that, just as Mathematics are applicable to all the relations of figure and magnitude, whether terrestrial or celestial, so the same Ethics are

applicable to *all moral relations everywhere throughout the universe!**

The manifest tendency of all these provisions is to *universalise our knowledge*, and to enable us to rise from particular observations to general laws,—to ascend from the facts of a brief and limited experience to conclusions which are alike universal and eternal. By a *similar provision* we are enabled to ascend from the knowledge of “things seen and temporal,” to the belief of “things unseen and eternal:” for it is an intuitive and inevitable conviction of reason, that since something exists now, something must have existed from all eternity, and that while space is unlimited, duration is everlasting.

Enough has been said to dissipate the prejudice against our cause, arising from the magnitude of the transition which must be made, when we pass from the visible to the invisible, from the temporal to the eternal. Enough, too, has been said to afford at least a presumption in favour of the possibility of some *such* provision for this end, as would only be consistent with the analogy of our experience in other cases of a similar kind. And these views effectually dispose of every objection, founded on the alleged *presumptuousness* of ascending, in our contemplation, so far above the limited sphere of sensible experience,—since it has been shown, that we could not make the very *terms of that objection intelligible*, unless we had contrived, somehow or other, to acquire the ideas of Immensity and Eternity. As these ideas cannot arise from *mere* sensible experience, but must owe their origin chiefly to the inherent energy of *reason*, called into action by experience, and then acting under its own natural

* DR CUDWORTH, “Eternal and Immutable Morality.”

DR CHALMERS, “Natural Theology,” I. 17, 305.

MR ISAAC TAYLOR, “Human Responsibility,” 60.

laws,—they afford at least a presumptive proof that there may be mental laws, of a similar character, which connect us with the spiritual world, and which make us capable of rising to the knowledge of God.

The fact that *present existence* is universally held to imply *antecedent and even eternal existence*,—the only fact on which this *first* part of our proof depends,—is admitted in express terms, or by necessary implication, in the statements alike of Theists, Atheists, and Pantheists. As a strenuous Theist, Dr Samuel Clarke builds his whole “Demonstration” on this fundamental assumption. “It is absolutely and undeniably certain,” he says, “that something has existed from all eternity. This is so evident, and undeniable a proposition, that no Atheist in any age has ever presumed to assert the contrary; and therefore there is little need of being particular in the proof of it. For since something *now is*, it is evident that something *always was*, otherwise the things that now are must have been produced out of nothing absolutely, and without a cause.” In like manner, the serene and lofty mind of Howe, the profound and erudite Cudworth, and the acute Wollaston, all concur in affirming this position as one of the foundations of Theism.*

The semi-sceptical Bayle is equally explicit. “There is nothing more easy than to know that there is a God, if by this word you mean nothing more than a first and universal cause. . . . Atheists, without a single exception, will concur with all the orthodox in affirming this thesis—‘that there is a first, universal, eternal Cause, which exists necessarily, and which ought to be called God.’ . . . But if you enlarge the formulary

* DR S. CLARKE, “Demonstration,” p. 7.

MR HOWE, “Living Temple,” i. 104, 107.

DR CUDWORTH, “Intellectual System.”

MR WOLLASTON, p. 65.

by adding, that God created the world, or that God governs the world, *then* you will see springing up from this centre of unity a diversity of sects.”*

It cannot be necessary to encumber the text, by quoting particular testimonies from the writings of Atheists; since every explanation, which they have ever attempted, of the existing order of nature, must be resolved ultimately into one or other of *two* distinct, but kindred, theories. *First*, the theory which affirms the eternal existence of the *world as it is*, with all its existing substances, properties, laws, and forms; or *secondly*, the theory which, abandoning the former opinion as no longer tenable in the present advanced state of science, affirms the eternal existence, not of the actual Cosmos, but of a *materia prima*, out of which,—either by chance or necessity, or by a law of progressive development,—but without the interposition of any Supernatural Cause, the present system of nature emerged. These two hypotheses exhaust the whole capabilities of Atheism, except in so far as it is purely sceptical;† a *third*, it is impossible even to conceive; and *both* evidently involve the idea of a self-existent, necessary, and eternal Being; and imply, therefore, a recognition of the fundamental principles for which we now contend.

That principle is explicitly acknowledged by D’Holbach, Comte, Atkinson, and Holyoake, among the avowed Atheists,—and by Crousse and others, among the Pan-

* BAYLE, “Continuation des Pensees Diverses,” pp. 8, 86; see also pp. 108, 138.

† BUDDÆUS, “De Atheismo et Superstitione,” pp. 237, 464, 468. That the *first* hypothesis, which Buddæus calls the Aristotelic, is not obsolete in modern times, appears from various significant indications. “Ten or twelve years ago,” says Bayle, “I asked a friend of a great mathematician, and a member of the Royal Society, of what religion he was? ‘Helas!’ repondit-il en soupirant, ‘il croit que les cieux ont été toujours d’eux-mêmes, et qu’ils seront eternellement tout tels que nous voions.’”—BAYLE, “Pensees Diverses,” III. 67.

theists.* We are warranted, therefore, in saying that Theists, Atheists, and Pantheists, do all proceed, in the first instance, on the *same common ground*, and that, to a certain extent, they all arrive at a *common result*,—inasmuch as, from the fact of existence now, they severally infer the existence of underived, self-existent, and eternal Being.

But a very interesting and, in some respects, a very extraordinary confirmation of these views, may be found in the fact, that the fundamental axiom of all the three rival systems is *one and the same*, and may be briefly expressed in the old adage,—“*ex nihilo nihil fit.*” This axiom, simple and self-evident as it may seem to be, has been understood and applied in *two* widely different, and even opposite senses. By the Atheist and the Pantheist, it has been understood to mean, either that every being which comes into existence must have been made out of *pre-existing materials*, or that it must have been derived *by emanation* from a primordial substance; and, in either case, it has been applied to exclude the doctrine of Creation, properly so called, by disproving its very possibility. In this sense, and for this end, it was frequently employed by Epicurean writers of old, as in the lines of Lucretius and Persius, where it is applied to prove that no being can be either created or annihilated.

“ Nil posse creari

De Nihilo, neque quod genitum est ad Nil revocari.”

“ Gigni

De Nihilo nihil, in Nihilum nil posse reverti.”

In the same sense, as well as for the same end, it is employed in the “*Système de la Nature.*”†

* D'HOLBACH, “*Système de la Nature,*” I. 2, 5, 29, 76, 89; II. 110. M. COMTE, “*Cours,*” II. 363; IV. 664. ATKINSON, “*Laws of Man's Nature,*” pp. 7, 8, 9, 20, 79, 205, 228, 343. HOLYOAKE, “*Reasoner*”—“*Paley Refuted,*” p. 37. TOWNLEY and HOLYOAKE, pp. 9, 17, 20, 24, 36, 42, 47. CROUSSE, “*Des Principes,*” pp. 189, 198, 267.

† I. 27.

But the maxim may be understood and applied in a very different sense. It may be understood as importing merely the fundamental axiom of *causation*, that nothing comes into being, or ceases to be, without a cause, adequate to produce the effect: and in this sense it has been applied by Theists in confirmation or defence of their belief in a Supreme First Cause. When the axiom is thus employed, however, we must guard, with extreme care, against a possible misconstruction of our meaning, which may arise from the ambiguity of language, and does not seem to have been always attended to as it ought. Anselm himself spoke confusedly, to say the least, on the subject of a creation *ex nihilo*: and his fond admirer, M. Bouchitté, is compelled to deplore what he calls “la subtilité malheureuse de son argumentation.”* A distinguished writer has recently said—“When aware of a new appearance, we are unable to conceive that therein has originated any new existence, and are, therefore, constrained to think, that what appears to us under a new form, had previously an existence under others. . . . We are utterly unable to construe it in thought as possible that the complement of existence has been either increased or diminished. We cannot conceive either, on the one hand, nothing becoming something, or, on the other, something becoming nothing. When God is said to create the universe out of nothing, we think this by supposing that He evolves the universe out of Himself; and, in like manner, we conceive annihilation only by conceiving the Creator to withdraw his creation from actuality into power.”†

* BOUCHITTÉ, “Histoire des Preuves,” p. 441.—The passage in the “Monologium” to which he refers, concludes,—“Il est donc nécessaire de conclure que cette Puissance Suprême est par elle-même et d’elle-même; i. e., qu’elle est elle-même *l’agent qui l’a créée, et la propre substance* ou matière d’où elle a été tirée. Elle n’est donc pas sortie de rien.”

† SIR WILLIAM HAMILTON, “Discussions on Philosophy,” p. 585.

But is it quite clear, *psychologically*, that we are unable to conceive of “a new appearance” as “a new existence,” or to conceive of it otherwise than as having had a prior existence under other forms? Is it quite clear, *theologically*, that there can be no other doctrine of Creation than that of *self-evolution* or *emanation*, and no other doctrine of annihilation than that of *absorption*? Commenting on a similar speculation of M. Cousin, the Abbé Maret makes the remark that, according to it, “God is an absolute and necessary Cause; He creates out of Himself; He passes into His work, while at the same time He remains in Himself. . . . The world, then, is created of the Divine substance, and is created necessarily. Its existence is as necessary as that of God himself,—since it is nothing else than the development of His life, the dualisation of His unity. . . . But then, in what can this doctrine differ from pure Pantheism? Does not Pantheism consist in making God pass into the world, and in regarding the world as a part of God himself?”*

In treating of the maxim, “*ex nihilo nihil fit*,” most Divines have carefully discriminated between the different senses in which it admits of being understood and applied. Buddæus, speaking of it as a fundamental principle of Atheistic philosophy, says that “as it is most true with reference to material causes, so it is most false with reference to an efficient Cause, possessing Almighty power:” and that “if a Spirit possessing Infinite power be supposed, reason itself will readily admit that we may believe in the production of something from nothing.”† And so most of our older Divines. A more recent writer, speaking with special reference to the state of modern speculation on the subject, has offered an admirable

* ABBÉ MARET, “*Essai sur le Pantheisme*,” p. 10.

† BUDDÆUS, “*De Atheismo*,” pp. 237, 505.

exposition of the sense in which the maxim ("ex nihilo") is either accepted, or refused, by Christian Theists. "When it is said that God created out of nothing, it is meant, that what *had no existence before*, did then *begin to exist*. Christian philosophers, who admit a creation 'ex nihilo,' do not consider *nothing* as the principle of *being*; they set out, on the contrary, from the *omnipotence of God*." In another work,* he explains the Christian doctrine of Creation. "At the beginning of the Bible, in its first verse, in its first line, I read these words,—these words simple and sublime, 'In the beginning God created the heavens and the earth.' What sense must we give to the word *created*? Must we understand by it a mere *formation*, a mere *organising* of the world out of pre-existing materials, or does it express that supreme act of Infinite and Almighty Will, whereby the substance of the world, which had no existence before *in God*, nor *in itself*, nor *in germ*, nor in *any formless or latent state*, was produced? In *this* case, there would be a true and real production of that which did not exist before in any manner; there would be a *creation* 'ex nihilo.'"

Having thus established, by the concurrent testimony of all the parties concerned in this discussion, the certainty of the principle on which the *first* part of our Proof depends, it may be useful, before leaving it, to indicate briefly what value we attach to it, and what application should be made of it, in connection with our general argument.

Some writers have evinced a tendency to attach themselves to this part of the Proof almost exclusively, to the neglect or disparagement of all *a posteriori* or empirical evidence. We are not prepared to deny, or even dis-

* ABBÉ MARET, "Essai," pp. 10, 129, 131, 198; "Theodicée," pp. 321, 325, 335.

posed to question, the legitimacy of any attempt that may be made, consistently with the fundamental laws of human thought, to infer *deductively*, from the idea of a self-existent, underived, and eternal Being, those attributes which may be shown to be necessarily involved in it, or rigorously deducible from it; for we have already indicated our agreement with Dr Waterland in thinking that, when the existence of *such* a Being is once proved, it is perfectly competent, if it be at all practicable, to reason from Attributes which have been ascertained, to other Attributes that may only be discerned as their necessary corollaries. The self-existence of an eternal Being is proved, and is acknowledged on all hands: and if *it could* be shown, by good and valid reasons apart from the *data* of experience, that such a Being must necessarily possess life, intelligence, self-consciousness, will, and other personal attributes, we are perfectly willing to give a patient and candid hearing to the proof. But, until these reasons have been adduced, we may be permitted to be thankful that we are not limited to *this*, or to any *one*, source of evidence,—that several distinct sources have been provided for our use,—and that, by combining the contributions which they respectively furnish, we may construct a *cumulative proof*, both stronger in itself, and better adapted to the varieties of mental gifts and tastes which exist in society, than *any one argument*, based on a solitary matter of fact, and supported only by a solitary principle of reason.

The chief uses and applications of the *first* part of our Proof, may be reduced to the following heads.

1. It is fundamentally important, as a *conditio sine qua non*, to the validity and conclusiveness of every other part of the proof, since no proof could be satisfactory, which did not contain in it the element of *efficient*

causation, or which fell short of necessary, self-existent, and eternal Being.

2. It is highly useful, as a means of elevating our minds to the contemplation of the Supreme Cause, since it suggests those ideas of Infinity, Immutability, and Eternity, which must all enter into our conception—of God.

3. It is equally useful, as an antidote to some of the most plausible, but pernicious, pretexts of Infidelity; since it serves to neutralise all objections against our competency to rise to a knowledge of the Infinite and Eternal, by showing that, in this respect, the Theist, the Atheist, and the Pantheist stand on *common ground*, and that the ideas of Immensity and Eternity cannot be excluded from any system which professes to be a representation of human thought.

4. It affords a positive proof—that, by the laws of our intellectual nature, we are necessarily shut up to the recognition of a *Being exempt from all conditions of time and causality*. It may, no doubt, seem strange, that our experience, which relates directly only to objects existing in time, and subject to the universal law of causality, should suggest the idea, and even necessitate the belief, of a Being exempt from, and superior to all these conditions;—but that such is the fact, whatever theory we may hold respecting the nature of that Being, may be established by a direct appeal to our own consciousness. We cannot divest ourselves of the idea of self-existent, underived, and eternal Being; and this idea, whatever else may be involved in it, clearly implies that such Being is exempt from all those *conditions of time, and causality*, to which the objects of our common experience are necessarily subject. This fundamental truth being established, the only question that remains is—What is

the self-existent, underived, Eternal Being—is it Mind or Matter? Nature or God? A living, intelligent Spirit, or a physical Fate, a blind Chance or Destiny?

4. It shows that God is, and must be, in many respects, *incomprehensible*; and serves to relieve us from the difficulties which reason must feel in reflecting on its own ideas of the infinite and eternal. The profound Pascal has shown, with reference to the fundamental conceptions of *time*, *space*, *number*, and *motion*—conceptions which are too simple to be defined, but which are intuitively apprehended, and constitute the firm foundations of our Mathematical knowledge,—that they all point to infinity, however incomprehensible it may be, and yet that we can have no completed infinity, insomuch that the two suppositions of space or time being, or not being, infinitely divisible, are equally inconceivable, and yet one or other of them must necessarily be true.* If such difficulties arise in discussing the foundations of the clearest and most certain portion of our knowledge, we need not be staggered if similar difficulties occur in treating of an Infinite and Eternal Being, nor hold ourselves bound to explain, *in all respects*, either the manner of His existence, or the mode of His operation.

* PASCAL, "Pensees," p. i. art. 2, pp. 19, 28.

CHAPTER III.

THE *SECOND* PART OF THE PROOF,—FROM THE EXISTENCE OF MIND.

THE *first* part of the Proof proceeded on the *bare fact of existence*, without reference to the nature or properties of any particular being; the *second* proceeds on the existence of Mind,—an existence *sui generis*, which is immediately revealed in Consciousness, and which is *conditioned* and characterised by the well-known properties of perception, intelligence, and voluntary or spontaneous activity. From this fact we ascend, under the guidance of the same “principle of causality” as before, to the conclusion that Mind, or a Cause capable of producing Mind, must have existed from all eternity.

Let us endeavour, in the first instance, to grasp the profound significance of this fact, and then to ascertain its argumentative value in connection with our great theme.

And since every part of the proof must ultimately resolve itself into an appeal to individual consciousness, and becomes self-evident only in the light of those laws of thought, which exist and operate in every human breast,—let us ask the thoughtful man, however unlettered, to reflect on the fact, that he is what he knows and feels himself to be, a living, intelligent, self-conscious,

and active being. We do not ask him, in the first instance, to examine the structure, or to institute any psychological analysis, of his mental powers. The variety of his faculties,—their mutual adaptations to one another, —and their manifold relations to their respective objects and ends, constitute a distinct source of evidence, and afford a valuable contribution to the general argument from Design, which will be unfolded at a later stage. Meanwhile, we appeal only to the most general facts of consciousness,—the consciousness of his own being, as a distinct, personal, spontaneous agent. The fact is undeniable ; it stands revealed in the light of its own self-evidence ; it is implied in every process of conscious thought. It is a simple but a great truth—have you ever realised it as such ? Have you ever seriously reflected on its profound import ? Have you ever thoughtfully asked yourself the question—What is meant by the little word, *I* ? It is a personal pronoun, in frequent use, and of familiar sound ; but what is its significance ? and what its origin ? It is a brief, but emphatic exponent of a fact of consciousness,—the condensed expression of a belief which springs spontaneously from a fundamental law of thought. You live, you feel, you think, you will, you are self-conscious : and this experience awakens an intuitive sense of your own personality, while it generates the idea of a kind of existence widely different from that of any lifeless or unconscious thing. You may not reason thus, “I think, therefore I am ;” but by a way more direct and rapid than any process of logic, you grasp your individual personality in the simplest fact of consciousness. You have no difficulty in distinguishing between the ME and the NOT-ME ; both stand revealed before you, distinct but related, in the light of their own self-evidence. You know what you mean, when you use

the word, *I*: you mean a living, intelligent, active agent, who is self-conscious, and, as such, possessed of a distinct individual personality.

But have you ever considered how much is involved in this natural and spontaneous belief? Have you ever thought of inquiring, how and why it is, that from the facts revealed in the light of your own consciousness, you are not only enabled, but constrained, to rise to the conception and belief of your proper personality? Your essential being,—that which you call *yourself*,—reveals itself to you by its properties and operations, and becomes the object of your most assured knowledge and belief, just as the sun is visible in its own light; and by a fundamental law of thought, all the properties and operations of which you are conscious, are reduced to the unity, and referred to the action, of a person,—a substantive being,—a living, intelligent, and spontaneous agent. You thus acquire, from the interior experience of your own bosom, an idea which, apart from such experience, no external teaching could possibly afford—an idea of conscious, personal being, evolved in the first instance from your own individual consciousness, but capable of being transferred, if occasion offers, to other beings exhibiting, by sufficient signs, the possession of similar properties and powers. But more than this;—you acquire from the same source, and with the like certainty, several other ideas, of which you must have been utterly destitute, had your consciousness been different from what it is. You come to know a kind of existence generically different from that of lifeless, unconscious matter. In your own bosom you find a being, whose essential nature is revealed by its characteristic properties,—life, intelligence, and spontaneous activity. That being you call Mind, or Soul, or Spirit—meaning

thereby to designate a self-conscious agent, endued with intelligence and will. Unlike matter, it is not inert, but spontaneously active ; and from its voluntary activity you derive your first, and highest, and only adequate idea of a Cause—of *power* and *efficiency*, as distinguished from the mere succession or sequence of events. You feel that you are an agent capable of producing certain effects by the mere energy of your will ; and from this rudimental experience, you rise to the conception of *efficient causes*. But your will is not a blind impulse : it is a power of deliberate choice ; it acts in the view of reasons and motives : it is combined with intelligence and forethought. You choose an end, and for its accomplishment, you select and adopt suitable means, availing yourself of all the knowledge which you can acquire, and applying it to the object at which you aim : and from this rudimental experience, you rise to the conception of *final causes*, or the knowledge of *purpose* and *design*. In the chamber of your own bosom,—in the little world of thought within,—you are acquiring the rudiments of a knowledge,—the first principles of a science, which may be found to hold good far beyond the range of your individual experience, and to be applicable universally in every realm of thought. In that secret laboratory, you are kindling a light which you may carry forth as a torch to guide you in exploring the outer world. You are not unprofitably employed in endeavouring to grasp these simple but fundamental elements of your consciousness ;—you are dealing with the first principles of reason, and these principles will be found applicable to every department of her wide domain. And can you reflect on the wonders which are revealed in consciousness,—on the amazing activity of mind,—on the vast range of thought,—on the speed with which it circulates, like the

electric current, from its inner centre outwards to the utmost bounds of space and time, and back again to its self-conscious source ;—on the conquests which it has already achieved in every region of research, and the still higher conquests to which it ever aspires, without feeling that you carry in your own bosom a power of unparalleled worth, whose origin and destiny demand and deserve your most serious inquiry ?

You have the consciousness, then, of your own individual being, as a personal, intelligent, and voluntary agent ;—but does your knowledge of Mind terminate here ? Do you not know, with the same assured certainty which you feel in regard to your own existence, that there are other intelligent beings around you,—that you are surrounded by your fellow-men, each with a kindred spirit in his bosom, and that you can even enter into communication and converse with them ? That you have this knowledge, this belief, is a simple but great truth : have you ever realised it as such ? have you ever seriously reflected on its profound import ? Have you ever thoughtfully asked yourself the question,—What is meant by the little word, *THOU*, or *HE*, as applied to any one of your fellow-men ? These, too, are personal pronouns, of frequent use and familiar sound ;—but what is their significance, and what their origin ? You have— you can have no direct or immediate cognisance of other minds ; they are not revealed to you, as your own is, in the light of personal consciousness ; yet your speech, your conduct shows that you have the same undoubting assurance of their existence as of your own. Whence this assurance ? What reason, were you asked for one, would you assign for your unhesitating belief in the existence of other minds around you ? You see the bodies of your fellow-men,—you hear their voices : and

these sensations are the medium through which you are first brought into contact with them: but mere sense cannot discover Mind, nor can it be revealed to you otherwise than in the light of your own intelligence. Your sensations may be the occasion of evoking that intelligence, and eliciting its latent power: but it is reason only, acting according to its fundamental laws, that enables you to appreciate the evidence, and apprehend the existence of other Minds. Your own reason enables you to *read and interpret the signs or indications* of a kindred reason in other men. For intelligence is manifested by *signs* peculiar to itself, which your personal consciousness qualifies you to discern and understand,—the signs of natural language, or of artificial speech, or of practical conduct,—all evincing the presence and operation of the same intelligence in your fellow-men of which you are conscious in your own breast: and, although, in the one case, your conclusion may be more immediate and intuitive, in the other mediate and inferential, the evidence in both is equally irresistible and certain.

Now realise the fact, in the first instance, that Mind exists,—your own mind, and many another mind around you; reflect, further, on the mental process by which you arrive at the knowledge of that fact,—the knowledge of yourself and of your fellow-men, as living, intelligent, and voluntary agents:—and then, reading each of these in the light of your own conscious experience, consider what relation they severally bear to the grand subject of our present inquiry. For they are both related to it, although in different ways. The existence of Mind constitutes an indispensable part of the evidence for the being and perfections of God: and the same laws of thought which give us the knowledge of our own, and

especially of other minds, are also the guides which conduct us onwards and upwards to Theology. The exposition of these laws of thought, in their relation to the truths of Natural Religion, may be best reserved for separate treatment at a later stage: meanwhile, appealing to the consciousness of every thoughtful inquirer, we assume what he cannot hesitate to grant,—the existence of Mind; and we ask him to realise that fact,—to weigh its significance,—and to entertain the question—how may it be best accounted for?

The question, in its most comprehensive form, may be thus stated,—Given, the existence of the human Mind,—it is required to account for its origin. Your mind, and my own, is a product in time; it came into existence at a definite date,—it is neither self-existent nor eternal. We are shut up, therefore, to the conclusion, that having had a commencement of its conscious being, it must also have had a cause, and such a cause as was adequate to its production. What is that cause? Shall we say that although your mind, and my own, and every other now existing on the earth, are all products in time and came into being at a definite date, they may be sufficiently accounted for by referring them to the law of hereditary derivation, and supposing an infinite and eternal series of such minds? On that supposition the individual is derived and dependent, while the race is self-existent and eternal. We shall not pause to inquire whether such a supposition can be rationally entertained,* although strong reasons have been adduced to show that it is self-contradictory and absurd: we content ourselves with the simple fact that as every individual mind is undeniably a product in time, so it is no less undeniable that it does not belong to an infinite series or succession of similar

* WOLLASTON, "Religion of Nature Delineated."

minds, since by the clearest evidence, historical and geological, the comparatively recent origin of the Human Race can be demonstrably established.* Exclude, then, the idea of an infinite succession of finite minds,—suppose that the series had a first term, a commencement at a definite period of time,—realise the thought that there was an instant at which man first awoke to self-consciousness, and became the living, thinking, active being he now is; and do you not feel that there is something in the structure of your own mind, which demands a cause adequate to the production of *such* a being,—and which instinctively responds to the Psalmist's appeal,—“He that planted the ear, shall He not hear? He that formed the eye, shall He not see? He that teacheth man knowledge, shall not He know?”† If the human race had a beginning,—and no man can seriously doubt that it had,—then reason, in seeking to account for its origin, will demand a cause adequate to the production of *such* a being,—a cause capable of imparting life, and sight, and hearing, and knowledge; a cause, in short, that is itself a conscious and intelligent Agent. A Supreme Mind, possessed of infinite intelligence and almighty power, is a cause that is adequate to account for it, and that meets and satisfies the highest demands of reason.

When you set out from the existence of self-conscious, intelligent, and active Minds, and seek to rise to the knowledge of their origin and cause, you proceed, as formerly, on the principle of *causality*; but that principle makes a much higher demand, when it is applied to “conditioned,” than when it is applied only to “unconditioned” existence. It demands, in either case, an *adequate* cause,—a cause sufficient to explain the origin

* *Infra*.

† Psalm xciv. 9.

of the product, which is to be accounted for. And when that product is Mind,—endued with life, intelligence, and spontaneous activity, Reason cannot rest in any cause which is itself destitute of these or similar properties.

What do you mean, it may be said, when you speak of an *adequate* cause? Must we hold that there can be *nothing in the effect which does not also exist in the cause*? If this be your meaning, will it not follow, on your own showing, that *whatever exists in Nature must also exist in God*? If this be *not* your meaning, why should it be more credible that Mind may produce matter, than that matter may produce Mind? These are reasonable questions, and they deserve a deliberate answer. We reply to the first that no enlightened advocate of Theism will contend that there can be nothing in the effect which does not also exist in the cause, in the sense supposed; otherwise, because matter exists with its inertia, and animal life with its instincts and passions, all these must be ascribed also to the First Cause, and thus he might be led on insensibly to the very verge of Pantheism. But he does require that for every object and for every event in Nature there shall be an adequate cause; and, with respect to self-conscious and intelligent minds, he maintains that no cause is adequate which is not itself conscious and intelligent. He affirms that a Supreme Mind, possessing omniscient knowledge and almighty power, is sufficient to account for the origin of all the substances and phenomena of nature. He does not ascribe material properties or animal affections to the Divine Being merely because they exist in nature. He holds nature to be *distinct* from God,—a product of His wisdom and power,—a mirror in which His attributes are reflected,—a volume in which, by legible characters

or expressive signs, “He maketh Himself known;” but not a work that can, in any respect, be identified with its Maker, or that can possibly possess the same attributes which necessarily belong to Him. But this answer being given, the *second* question seems to recur with augmented force:—Why, if there can be any thing in the effect which does not also exist in the cause, it should seem more incredible that matter may produce Mind, than that Mind may produce matter? We might reply, that the question with which we have at present to do, relates only to the creation of mind,—but if it must be extended so as to include also the creation of matter, it may be warrantably affirmed, that it is from the consciousness of our own minds that we derive our first and only adequate idea of a Cause, implying efficiency and power,—that we have such an intimate experience of the power of Mind over matter,—its power to mould and fashion it into various forms, to originate, sustain, direct, control, or suspend its movements, to bend it into a subservient instrument for the accomplishment of its own ends, to apply it to different uses according to our own will,—as justifies us in ascribing to Mind the high prerogative of a lordship or dominion over matter: and that if this dominion, in the case of man, extends only to the relative adjustment and useful application of pre-existing materials, we are enabled by our own experience to conceive of an intelligent workman devising and preparing his own tools, as well as making use of them, for the accomplishment of his designs,—and are thus qualified to entertain the question whether, in the case of God, the elementary substances of nature may not be regarded as instruments created by His will, with a view to the works which were to be constructed by His wisdom and power. If we have no experience of creation in its

highest sense, as implying the production as well as the adjustment of materials,—we have yet the consciousness of a capacity to frame the ideal model of a work of skill, —to conceive of instruments adapted to its execution,—and to forecast the effects which would be produced, had we the power to call these instruments into being, and to apply them according to our will. And when we conceive of an omnipotent Will,—we see nothing incredible in the supposition that it may have created its instruments as well as presided over their application;—that it may have called the elementary substances of nature into being, with a view to their subsequent use in the construction of the existing order of things. This supposition is credible, and may even become self-proving, should it appear that the properties and laws as well as the number and quantity of these substances bear the marks of being, not necessary, but arbitrary;—at all events, it is in the line of those conclusions which the analogy of nature and the dictates of reason suggest, as the ultimate landing-place of human thought. That the power of calling both matter and Mind into being may be ascribed to an Infinite Spirit, seems to be a self-evident truth: and even were it more difficult than it is to account for the origin of matter by ascribing it to an Almighty Will, we can have no difficulty in concluding that Mind at least must be the product of an intelligent Cause,—“the offspring of God, the Father of the Spirits of all flesh.”

We have sometimes wondered that this important part of the general proof has so seldom received the attention which it deserves, and that so little prominence has been given to it in the statement of the evidence. It must have been tacitly assumed, however, where it was not articulately announced,—and if it has not been promi-

nently presented, this could only be because, from its extreme simplicity, it might be regarded as self-evident. It is at once a more direct and more comprehensive proof than several others that might be mentioned; and were we disposed to let the weight of our cause rest mainly on any one line of proof, we would rather found on the *existence of Mind*, than on the *mere existence of any thing else*. For, when Dr Clarke and others, founding on the mere fact of existence, rise at once to the stupendous idea of necessary, self-existent, and Eternal Being, and thereafter deduce from that idea the attributes which must belong to God,—might it not be an equally legitimate, as well as a much more direct and comprehensive method, to set out from the existence of the self-conscious Mind, a fact which is necessarily implied in every process of thought, and which leads us *directly* to a Supreme Intelligence? And when Descartes and others, founding on the *mere idea* of a Perfect Being, attempt to prove His existence by means of that idea,—by alleging either that such an idea must necessarily have an object to which it corresponds, or that existence, being a perfection, must necessarily belong to the All-perfect,—might it not be equally legitimate, and still more conclusive, to set out from the existence of the Mind in which that idea resides,—the existence, not of a *mere idea*, but of a *real being*, possessing properties peculiar to itself, and demanding, for any rational explanation of its origin, a cause adequate to its production?

In estimating the value of this part of the proof, or the kind and amount of evidence which it is fitted to afford, several distinct considerations must be taken into account.

—According to the sublime doctrine of Scripture, Man was made “in the image and likeness” of God; and as

that image consisted chiefly in his spiritual and intelligent nature, every Christian will naturally conclude, that the Mind of man, which reflects the Divine "likeness," must afford the clearest manifestation and the strongest evidence of His being and perfections. And, even where the authority of Scripture is doubted or denied, there can, at least, be no question, that the Human Mind is the noblest Being in the world, and that here, if anywhere, we may expect to find a mirror reflecting some of the Divine perfections.

—The existence of the Human Mind is necessarily presupposed in every process of proof, and is really, although perhaps unconsciously, assumed by every one who reasons on the evidence at all. If it be not the formal ground and reason of his argument, it is, at least, a necessary postulate, and it is really subsumed, even where it is not ostensibly presented. It seems, therefore, to be perfectly legitimate to set out from this fact, as revealed in consciousness, and involved in the process of thought; and to inquire what evidence it may be capable of affording in regard to the existence and attributes of God.

—It is from our own mental consciousness, as percipient, intelligent, and active beings, that we are qualified to form any idea of God at all,—and especially that we acquire those ideas of wisdom, power, self-consciousness, and personality, which are all involved in our conception of His nature. These ideas are transferred, *by analogy*, to the Author of Nature, when we discover in its structure those manifestations of design, and in its processes those indications of power, from which we infer His existence. The facts of our own consciousness supply the analogies on which the Teleological proof, or the argument from *final causes*, mainly depends: and it would seem requisite, therefore, to consider these facts, in the first instance, if we

would duly appreciate the evidence of nature itself. Nothing can be more certain than that it is our own mental consciousness which qualifies us to form any idea of the attributes of God. It is from the analogy of our own intelligence that we form a conception of His omniscient wisdom : it is from the analogy of our own spontaneous and voluntary activity that we form a conception of His almighty power : it is from the analogy of our own self-conscious personality that we form a conception of a living, personal God. This doctrine may be, and has been, perverted and misapplied ; but to this extent it is unquestionably true, that we are guided by the analogy of our own mental experience in forming all our conceptions of the being and attributes of God.

Such are some of the considerations which must be taken into account in estimating the value of this part of the general proof. It is from the knowledge of our own personal existence, and of our conscious experience, as intelligent and voluntary agents, that we are qualified to form any conception either of the being or attributes of a living, personal God. The existence of the Human Mind is necessarily presupposed in every process of proof. But the origin of the Human Mind, constituted as it is, and endowed with such peculiar powers, demands for its explanation a cause adequate to its production,—a Cause capable of giving birth to living, intelligent, and active beings,—a Cause widely different from any merely material or mechanical agent. The importance of the Human Mind, in relation to our great argument, has been explicitly acknowledged by many distinguished writers, both philosophical and religious. “It seems to me very plain,” says Dr Channing, “that Nature, which you look to with so much hope, is not, and cannot be, the primary or chief

source of our ideas of God, or the great means of our communication with Him. Nature, indeed, shows *design*; but *the idea of design* we learn wholly from our own souls. These are our great teachers of God. God is a Spirit; and His spiritual offspring carry the primary revelation of Him in their own nature. His attributes are first made known by the shadows or emanations of them in ourselves.* "It is never to be forgotten," says Dr M'Cosh, "that apart from a reflex contemplation of the human soul, it is impossible to rise to the conception of a living and intelligent God. It is in the human soul, small though it be when compared with the Object reflected, that we are to discover most distinctly represented the *image* of a spiritual God. Without taking human consciousness and intelligence and feeling into view, God could be conceived of only as a mere principle of mechanism or order in nature,—or a power of fate,—or a law of development above nature (as with Schelling), rather than a real and living Agent. It is the possession of consciousness and intelligent purpose by Man, that suggests the idea of a conscious and personal God. From what we have ourselves experienced, we know that intelligence is needful in order to produce *such* effects as exist in nature around us; and thence we rise in our conceptions to a living Soul, presiding over the universe, and regulating it, not according to a mere law of mechanism or development, but by the wisdom of spiritual intelligence and love. The very existence of the human soul as a created object, which it evidently is, implies an intelligent Soul as its Creator, and that a Soul of prodigious compass of power and intelligence. If the creation of the beautiful forms of matter argues an extraordinary power and skill, does not the creation of spiritual, intelli-

* DR W. E. CHANNING, "Memoirs," II. 438.

gent beings impress us still more with the knowledge and wisdom of the Creator?"*

But simple, direct, and conclusive as the proof arising from this source may seem to be, and intuitively discerned, as it really is, by every reflecting mind, however unlearned, it is not difficult for speculative men, who delight rather in the sceptical discussion of evidence than the actual discovery of truth, to invent certain plausible evasions, or even some apparent objections, by which they may hope to escape from the conclusion to which it leads.

—One will tell you, that you assume too much when you found on the existence of the Human Mind;—that thought and all the facts of consciousness are purely phenomenal and relative,—that they are the mere shadows of a dream,—mere images which succeed each other, it may be, according to certain laws, but which are merely reflected in consciousness, and evanescent as the lights of a transient phantasmagoria,—and that you are not entitled to refer the fleeting phenomena of consciousness to any substantive being; you are conscious only of a flow of thought, not of the existence of mind. According to him, there may be a shadow without a substance,—an image without a mirror,—a dream without a dreamer,—a property without a subject,—a feeling without a sentient,—a passion without a patient,—an action without an agent! From the evidence of consciousness you cannot reasonably believe in the existence of your own mind;—from the evidence of experience and observation you cannot reasonably believe in the existence of other minds around you! And why not? Because you cannot throw the proof into a syllogism, or exhibit it in a logical form.

* DR M'COSH, "Method of the Divine Government," p. 6.

See also DR REID's Works, by SIR WM. HAMILTON, p. 76.

MR SHEPHERD, "Essay on Christian Theism," p. 28.

But what if *reason* should be found to precede *reasoning*, and to underlie the whole fabric of logic? What if the *spontaneous* be antecedent to the *reflective* exercise of thought, and the intuitive perceptions of reason prior to, and independent of, the slower processes of the understanding? May it not be that there are certain notions which cannot be defined, and certain truths which cannot be demonstrated, simply because they are self-evident? Are there not some first principles of knowledge which cannot be established by any other principle simpler, or clearer, or more certain than themselves? * The fundamental idea of Mechanics is that of *motion*; of Arithmetic that of *number*; of Geometry that of *space*; of Ontology that of *being*; but all these ideas are too simple to admit either of definition or proof, and too self-evident to require it. In such cases, an appeal must be made in the last resort to individual consciousness. And so the fundamental idea of Pneumatology—is that of *mind*; and in regard to this also we can only appeal to the conscious experience of every honest inquirer. Examine yourselves:—reflect on what you find within; seek to bring the question to a decisive issue by scrutinising the constituent elements of your own consciousness;—do you not find there, over and above the sense of transient thought and feeling, an intuitive, deep-seated, ineradicable conviction of a *permanent being*, the subject of a thousand impressions,—of a *personal agent*, the author of a thousand voluntary acts? Do you not know and believe your own existence, and the existence of your fellow-men as living, intelligent, and active beings? You may be directly conscious only of trains of thought and of their associated feelings,—but in the very process of thinking, are you not also conscious of a law which comes into

* PASCAL, "Pensées," art. ii., p. 13.

unbidden operation, and which determines your belief in your own existence and identity? You are not conscious of the thoughts that may be passing through the minds of your fellow-men; but you discern in their features, their gestures, their speech, their actions, signs of intelligence which you instantly interpret; and you believe as firmly in the existence of other minds as you do in that of your own. You know what you mean when you use the words *I*, *Thou*, and *He*. You find these or similar terms in every dialect of human language, the most faithful mirror of human thought;—and you have thus the unanimous testimony of the Race to confirm, if that were needful, the unprompted conclusion of your own reason. And having such evidence, you will not be seduced by any sophistry to doubt the existence either of your own or of other minds, merely because you cannot throw the proof into a logical form;—you will be content with that method of knowing the truth which leaves no room for doubt, and will only be thankful that if you are warranted to believe in the existence of your own and of other Minds, you may be equally warranted also to rise to the belief of a Supreme Mind, “the Father of Spirits,”—“the Creator of the heavens and the earth.”

—Another will tell you, that in assuming the existence of Mind, and applying it in proof of the existence of a living, personal God, you speak of a distinct “spiritual substance,” which you conceive to be different from matter in its essence and properties; and that this is an assumption which all Materialists must abjure. But what is really meant by a “spiritual substance?” Does it mean any thing more than a self-conscious being, endowed with life, intelligence, and will? And, if this be its meaning, are you not infallibly certain that you are

individually such a being? You call that being Mind, or Soul, or Spirit, merely to distinguish it from other beings which do not possess these properties,—since it is by their properties only that you can know any thing either of mind or matter. The manifest diversity of their respective properties affords a sufficient ground for the distinction which you make between them.—But should the question be raised—May not the properties of mind inhere in a material substance?—or, May not thought and feeling be the result or product of material organization?—it is not absolutely necessary that you should entertain that question, or that you should involve yourself in a labyrinth of abstruse metaphysics, before you can feel the force of this part of the proof. For that proof does not depend absolutely on any assumption respecting the essence of matter or of mind. It is clearer and more direct, when viewed in the light of Spiritualism, but is far from being utterly annulled or vitiated by the supposition of Materialism. In the former case, it might enable us to rise direct to the knowledge of God as a Spirit distinct from the material universe; but even in the latter, it is still valid to the extent of proving, that a self-conscious, intelligent, and active being, whether with or without material organs, must have existed from all eternity. Accordingly, the illustrious Fenelon argues the question on each of these alternative suppositions; he prefers, as every deep thinker will, the doctrine of Spiritualism, but does not hold that the proof is so absolutely dependent upon it, as to have no force or validity on the opposite supposition of Materialism. “Here is an alternative,” he says, “which no philosopher can evade. Either matter can become intelligent, without any thing being added to it,—or, matter cannot think, and that which thinks is a being distinct from it, and

united to it.—If matter can become intelligent without any thing being added to it, it must, at least, be admitted that *all* matter is not intelligent, and even that the matter which thinks to-day did not think fifty years ago. . . . And who is it that has found out, with so much exactness, that proportion—that configuration—that arrangement—that movement in one such way, and not in another; that movement in such a degree, above or beneath which matter would never think? . . . If it be said, on the other hand, that matter cannot think without having something added to it, and there must necessarily be ‘another being’ which is united with it, what, I ask, is that other being? . . . Whence comes it? and how was it united to another, so dissimilar? . . . In short, my alternative ever recurs, and it is decisive. If Body and Soul be but one, entirely composed of matter, whence comes it that the matter which did not think yesterday has begun to think to-day? Who is it that has given it that which it had not before, and which is incomparably nobler than itself, while it was without thought? He that gave it *thought*, had He no intelligence himself? or could He give it without having it? Suppose, even, that thought results from a certain configuration, a certain arrangement, and a certain degree of movement, of all the parts of the material substance,—what artificer has had skill to discover all these combinations, so exact and precise, in order to construct a ‘*thinking machine*?’ If, on the contrary, Soul and Body are two different natures,—what power, superior to these two natures, has been able to bind them together, without the soul having any part in it, or even knowing how that union is effected? Who is it that thus sways, with such supreme authority, both Souls and Bodies, so as to hold them together in a mutual

correspondence, and under a kind of government so incomprehensible?"*

—Another will tell you, that the existence of Mind will not prove the existence of God, since Mind may have originated, not in a *supernatural act of creation*, but in a *natural law of development*. Exclude the supposition of an infinite succession of finite minds, or of the eternal existence of the human race, which is manifestly untenable,—there still remain, it is said, two conceivable alternatives,—Divine Creation or Natural Development. You will have little difficulty in deciding on the respective claims of these two alternatives. You will see at once that the latter is based on a mere assumption—the assumption of the existence of certain powers and processes in nature, which are capable of generating Mind,—an assumption which is unsupported by the slightest vestige of experience, and which never has been, and never can be, proved. But you will also see that, even were that supposition entertained as a possible account of the *historical origin* of the human Mind, it would not materially affect our present argument, nor supersede the great question which, in its most general form, may be stated thus—Whether, without the supposition of a Supreme Mind, we can assign any reason for the existence (“*raison d’être*”) of other minds, which have come into being, whether through a process of development, or in any other conceivable way? For the mere *method of production* has really little connection with the main question. Suppose it be true, or, if its truth can never be ascertained, suppose it to be possible, that nature may have been so constituted as to be capable of evolving Mind by a process of self-development,—this supposition might admit of being applied to explain the

* FENELON, “De l’Existence et des Attributs de Dieu,” pp. 47–49.

mere historical origin of our race, but assuredly it could not destroy, nor even diminish, the necessity for having recourse ultimately to a Supreme and Almighty Intelligence. For if in the structure of a single watch we find marks of design which compel us to ascribe its formation to a skilful artificer, would that evidence be less conclusive if, in addition to these marks of design, we discovered in it a *prospective provision* for generating other watches ;—and, still more, if it were found to be endued with the marvellous power of evolving, by a process of self-development, some other instrument or being, as unlike itself in all its properties as Mind is to Matter ? The fact of the existence of self-conscious, intelligent, and active beings, is employed, and it is sufficient, to prove *this one point*—that Mind, or a Cause capable of producing Mind, must have existed from all eternity : and if it leaves the question open between a *law of development*, or an *act of creation*, these alternatives must be discussed and decided each on its proper merits, but they can have no power to invalidate *that* conclusion. A Cause there must be, an efficient and an adequate Cause. And if we reject the theory of development, as opposed to the doctrine of Creation, we do so, not because the former is necessarily Atheistic,—although it has often been understood and applied in an Atheistic sense,—but simply because it is utterly destitute of any evidence sufficient to make it even probable, and because, even were it admitted as a possible way of explaining the *historical origin* of the world, and its various tribes of being, it gives no account of the *efficient cause* of any thing in nature, and, least of all, of the Existence of Mind.

—Another will tell you, that the whole proof, whether from the existence of Mind, or the manifestations of

design in nature, proceeds on the precarious ground of *analogy*,—that, if followed out consistently and consecutively to its legitimate consequences, it must introduce an *anthropopathic*, or even *anthropomorphic* Theology; and that it amounts to nothing more than the apotheosis of the human mind,—“the projection of self into the infinite.”—You will calmly weigh, and can easily deal with, such representations as these. You may even extract from them some useful instruction. You do proceed on the principle of *analogy*; and that principle may be, and has been, perverted and misapplied. It was pressed, we think, beyond its legitimate limits when it was employed to prove that we can have no proper or positive idea of the Divine attributes.* There was here an undue restriction of it, such as might seem to leave us in great uncertainty in regard to all that we most desire to know concerning God. It is possible, too, that by an undue extension of it, the argument founded on the analogy between the human and the Divine Mind, may have a tendency to introduce *anthropopathic* or even *anthropomorphic* representations into Theology, and to degrade the character of God by reducing it to the “similitude of man.”—It is well to be reminded of the danger to which we are exposed, by the possible abuse or undue extension even of a sound and legitimate principle. Assuredly, no greater injury could be done to Theology than that which must arise from the ascription of bodily form or human passions to the Supreme Being, in any other than a metaphorical sense. It was the great sin of the heathen world that “they changed the glory of the incorruptible God into an image

* BISHOP BROWNE, “Procedure, Extent, and Limits of the Human Understanding.”

BISHOP BROWNE, “Divine Analogy.”

ARCHBISHOP KING, “Origin of Evil.”

made like to corruptible man;” and for this sin, all who follow their example are reproved in these solemn terms: “Thou thoughtest that I was *altogether like unto thyself.*” But while we must carefully guard against the ascription to God of any thing that belongs to the infirmity of man, we cannot, if we would, dismiss altogether from our thoughts the *analogy* between the human and the Divine Mind; nor would we, if we could, dismiss or forget it, since it is our highest dignity and privilege that we were created “in His image and likeness.” The perversion or undue extension of that analogy may have led to idolatry and image-worship; but the right application of it is the best corrective of superstition in every form:—“Forasmuch as WE,” says the Apostle, “are *the offspring of God*, we ought not to think that the Godhead is *like unto gold, or silver, or stone, graven by art and man’s device!*”* It is only because we are conscious of possessing powers, infinitely inferior, yet similar in kind, to His own, that we are capable of forming any conception of God at all. Destitute of these powers, we should be as devoid of Religious knowledge as are the beasts of the earth, or the birds of the air: and hence the whole language of Religion,—even such as is used in Scripture itself,—is *analogical*, and expresses things Divine by means of human similitudes.

But is *analogy*, you may ask, a safe and legitimate guide in such a case? Is it a sure basis of belief—is it strong enough to sustain the weight of the conclusions which you build upon it? We might reply that our conclusion rests not on a mere analogy, but on an *inductive judgment*. But for a practical answer, we refer you once more to your own consciousness. Is it not from the *analogy* of your own mental experience that you form the conception

* Acts xvii. 29.

of kindred minds around you, and rise to the assured conviction of their actual existence? Do they not reveal themselves to your mind by certain intelligible signs which your own intellectual consciousness enables you to discern and interpret? And yet, is not the knowledge which you possess of your fellow-men as certain as any intuitive belief could be?—And if it be a safe and legitimate guide thus far, may it not conduct you onwards and upwards to a still higher knowledge? Apart from scientific Psychology, the simplest exercise of reflective thought gives you the idea of a kind of existence, very different from that of lifeless, inert, unconscious matter; and this idea, clearly and vividly apprehended, is felt to invest intelligent and voluntary agents with a pre-eminent dignity, as superior to every other object in nature. You see around and underneath you a graduated scale of existence,—from the rudest form of matter to the rudimentary forms of organised life, and from these, again, up through manifold varieties, to Man, the monarch of all. But Man himself,—what is he but the connecting link between the two worlds,—the world of matter, and the world of mind; related to the one through his organic body, to the other by his self-conscious spirit? By his mental faculties, he takes cognisance of both;—and just as he apprehends an external material Cosmos, so surely does he apprehend a community of living minds, a host of self-conscious, personal beings. Must he stop here? May he not, by means of the same faculties, rise to the idea and contemplation of pure spiritual intelligences, and even of a Supreme Mind? The more he reflects on his own consciousness—the more vividly he conceives of life, intelligence, and power, will he not be the better prepared to discern and appreciate every indication of a spiritual, or even supernatural economy? Why, will such an one

say, should the scale of being ascend through so many gradations, and terminate with Man, when Man himself can conceive of far higher degrees of being and perfection, —of a vast hierarchy of Minds stretching indefinitely upwards, and leading us on to the Throne of Him who alone is self-existent and eternal?

CHAPTER IV.

THE *THIRD* PART OF THE PROOF,—FROM THE PHENOMENA OF CONSCIENCE.

IF the profound and deeply reflective mind of Kant erred in rejecting, or at least disparaging, the speculative argument for the being and perfections of God, he still found in the Practical Reason, and especially in the Moral Faculty, a firm foundation for religious faith. We think that he has given an undue, because an exclusive, prominence to this part of the complex proof: but society is indebted to him for a noble and seasonable vindication of that “law” by which “every man is a law to himself,” and also for some pregnant suggestions in regard to its religious bearings. “Ethic,” says he, “issues inevitably in Religion, by extending itself to the idea of an Omnipotent Moral Lawgiver, in whose will that is the end of creation which at the same time can and ought to be likewise man’s chief end. . . . If Ethic recognise in the holiness of its law an object of the greatest veneration, it doth further, when it exhibits as an object of adoration a Supreme Cause, executive and upholder of the law, enrobe itself with majesty, and appear in state. . . . The idea of Godhead takes its rise from our consciousness of the Moral Law, coupled with the need felt by reason of assuming somewhere a higher

power, able to procure to that law whatever whole and entire effect a created universe will admit of, and to make that effect conspire and harmonise with the moral scope of all things.”*

The evidence which Conscience affords is peculiarly valuable. When viewed in its relation to our other faculties and the circumstances in which we are called to act, it affords, like every other part of our mental constitution, undeniable proof of *design*; but considered simply in itself, the evidence which it affords is of a *peculiar kind*. It serves, not only to demonstrate the *existence*, but also to declare the *character*, of Him by whom we were framed. It is the source of all those ideas by which we are rendered capable of apprehending His moral perfections; and it furnishes some of the strongest proofs by which these perfections may be satisfactorily established. It makes God known to us, not as the Creator merely, but also as the Lawgiver, Governor, and Judge. The intuitive lessons which it teaches bespeak *authority* as well as *design*; and unfold the *will*, as well as the *wisdom*, of God.

In adducing and applying this proof, it is necessary, in the *first* place, to establish the existence of a *Moral Faculty*, and of a *Moral Government* in the case of man; and, in the *second* place, to show that the phenomena of the Moral world afford valid evidence both of the being and perfections of God.

1. The existence of a Moral faculty in man may be evinced by practical proofs, such as are altogether independent of the speculative controversies which have been raised respecting it. It may be, as Sir James Mackintosh thought, that Conscience is not an original and inde-

* IMMANUEL KANT, “Religion within the Boundary of Pure Reason,” pp. 4, 6, 132. Translated by J. W. SEMPLE, Esq., Advocate.

pendent faculty, but a product generated by the concurrent action of several powers: but, even on that supposition, the *law of its development* must be held to be natural, uniform, and universal; and Conscience may still be said to be as natural as our teeth are, for whose production at the fitting time a wise prospective provision has been made. We need not embarrass our argument, therefore, with any discussion respecting the *genesis* of Conscience.

Nor is it necessary, for our present purpose, to determine the various questions which have been raised respecting either the *nature of the faculty*, or the *objective nature of virtue*: our proof rests on the familiar facts and laws of our moral nature, which are immediately made known in consciousness, and which are not affected by the different attempts that have been made to offer a philosophical explanation of them. "Upon whatever," says Dr Adam Smith, "we suppose our moral faculties to be founded,—whether upon a certain modification of reason,—upon an original instinct called a moral sense,—or upon some other principle of our nature, it cannot be doubted that they were given us for the direction of our conduct in this life. They carry along with them the most evident badges of this authority, which denote that they were set up within us to be the supreme arbiters of all our actions,—to superintend all our senses, passions, and appetites,—and to judge how far each of them was either to be indulged or restrained. It is the peculiar office of these faculties to judge,—to bestow censure or applause, upon all the other principles of our nature."*

In such a case, our first appeal must be to *individual consciousness*. Every man that lives anywhere on the surface of the whole earth, and in whatever condition,

* DR A. SMITH, "Theory of Moral Sentiments," p. iii. c. v.

whether of savage or of civilised life, is conscious that he is *subject to a law*,—a law not external to himself, but inherent in the constitution of his own nature,—not inscribed merely on tables of stone, nor written in the statute-books of nations, but engraven on his own heart, and legible in its own light. In the expressive language of the Apostle, every man “is a law to himself,”—and go where he will, whether into the solitary wilds of nature, or into the densely crowded streets and lanes of a populous city, he carries with him an undying monitor of his duty,—a sleepless witness of his guilt. This is the great fact on which we found. Let every one consult his own consciousness. Has he not felt, from his earliest years, the operation of *a law within*; a law often at variance with his inclinations, sometimes resisted and disobeyed, but always imposing a sense of obligation, and a feeling of restraint? Has he never felt that he was not *free* to choose, to approve, to blame, or to act, according to his own caprice; and that he could not do so without a sense of misgiving and remorse? When he was tempted in childhood to conceal a fault, what was it that led to this concealment? and if the original fault was concealed by deceitful prevarication, was there not something within his agitated breast which forbade the guilty fraud,—a still small voice which he might resist but could not allay,—did not his tongue falter, and his eye shrink from a father’s inquiring look,—did not his very countenance, by its alternate flushing and paleness, betray what was passing within, and prove, by the agitation of his heart and frame, that the law which he dared to violate was nevertheless strong to condemn?

This fundamental moral law is independent of man’s will, and claims supremacy over it. So far from being a mere figment of his own imagination, or a creation of

human policy, it is inwrought into the very texture of his spirit; and, however boldly he may resist it, or however eagerly he may seek to silence its voice, it baffles all the efforts of his will. It cannot, indeed, compel obedience; but it still speaks to him in the language of authority, and imposes an irresistible sense of obligation. The martyr obeys it; but the murderer feels it too,—the midnight murderer, who fears neither God nor man, but, for the satisfaction of his revenge, or with a view to plunder, imbrues his hands in a brother's blood, even he, as he steals along the dark and unfrequented road, feels in his inmost soul the stirrings of a power which cannot be quelled; and, although he would gladly stifle its voice when it seeks to scare him from his prey, he can only resist, he cannot subdue it. It forewarns him against the guilty deed; it agitates and accuses him while the deed is being done; it follows him in his remorseful flight; it pursues him in the crowded city; it haunts him in the solitary desert; it darkens his thoughts as he lays himself down to sleep; it mingles with his very dreams; it smites him even at the festive board, amidst the revelry of companions as daring and desperate as himself; and all this *against his will*, by an inherent, unalterable, and everlasting law of his nature.

It is the peculiar prerogative of Conscience to govern all our other faculties and affections; and to determine what *ought* to be the frame of our temper and the course of our conduct. This legislative authority belongs exclusively to the Moral faculty. Our other powers enable us to discover *what is* (quid est?); this decides what *ought to be* (quid oportet?). It pronounces its decision, too, on many occasions in direct opposition, not only to the transient impulse of passion, but to the deliberate and habitual determination of the will. Love, pity, anger,

admiration, gratitude, have each its own appropriate object, just as the eye is adapted to light, and the ear to sounds; Conscience takes cognisance of whatever is *moral*, and gives law to the whole mind in all its voluntary operations. It is the regulator within, and claims a rightful ascendancy there, however often its authority may be resisted, and its mandates disobeyed. Its supremacy cannot, indeed, be questioned unless it be maintained that by nature all states of mind, and all voluntary actions, are equally indifferent. But who can be so utterly dead to all moral sensibility as to regard with the same feelings the insatiate fury of a bloodthirsty persecutor, and the meek endurance, the heroic self-devotion, of a Christian martyr? Does Nature mark no moral difference betwixt the character of a perjured witness, and that of an honest man whose word is as sacred as his oath? Who can contrast the kindness of a generous benefactor with the base ingratitude by which it is so often repaid, without being conscious of very different feelings? It is by thus considering the broad distinctions of character, and by contrasting extreme cases of good and evil, that we may most easily convince ourselves of the existence and operation of *a moral law*; a law so certain and so universal, that it has been recognised and eloquently descanted on, even where the light of Revelation never shone. “*Est quidem vera lex,*” says Cicero, “*recta ratio, naturæ congruens,—diffusa in omnes, constans, sempiterna,—quæ vocet ad officium jubendo, vetando a fraude deterreat; quæ tamen neque probos frustra jubet aut vetat, nec improbos jubendo aut vetando movet. Huic legi nec obrogari fas est, neque derogari ex hâc aliquid licet, neque tota abrogari potest. Nec vero aut per senatum aut per populum solvi hâc lege possumus, neque est quærendus explanator aut interpret ejus alius.*”

Nec erit alia lex Romæ, alia Athenis, alia nunc, alia post-hac; sed et omnes gentes, et omni tempore, una lex et sempiterna et immortalis continebit,—unusque erit communis quasi magister et imperator omnium, Deus ille, legis hujus inventor, disceptator, lator; cui qui non parebit, ipse se fugiet, ac naturum hominis aspernabitur, atque hoc ipso luet maximas pænas, etiam si cætera supplicia quæ putantur effugerit.”

Our appeal has been made, in the first instance, to *individual consciousness*; we now appeal, in the second, to the *concurrent attestation of Scripture*. We do so, both because it is important to show that a natural Moral law is clearly recognised by Revelation, and also because the apostle offers, in a few pregnant words, a brief but very comprehensive statement of the evidence by which its reality may be satisfactorily established. The object of his reasoning, in the first part of his Epistle to the Romans, is to prove the universal and inexcusable guilt of all men as transgressors of the Divine law, and to warn both Jews and Gentiles that they were subject to a Moral government, and responsible to a righteous Judge. But mankind were then, as now, divided into two great classes; the first comprising such as had enjoyed the light of Revelation, the second those who had been left to the sole light of Nature: and it might seem that while the former were justly liable to a charge of guilt, the latter might plead exemption on the ground that to them no law had been revealed, and that “where there was no law there could be no transgression.” Yet the apostle includes *both* classes in his charge: and while he admits the difference which existed between the two, and recognises the equitable principle that “to whom much is given, of them shall the more be required,” he shows that although the Gentiles had not the same ex-

ternal privileges which were vouchsafed to the Jews, they were, nevertheless, the subjects of a Moral Government, since they had the *natural law of Conscience*,—a law written by the finger of God himself on the tablets of their hearts. “For when the Gentiles, which have not the (revealed) law, do by nature the things contained in the law, these, having not the (revealed) law, are *a law unto themselves*; which show the work of the law written in their hearts,—their conscience also bearing witness, and their thoughts the meanwhile accusing, or else excusing one another.” *

The Apostle’s object being to establish the existence and universal obligation of a Moral Law, he adduces *three* distinct proofs of its authority; the *first*, derived from the practical conduct of men when “they *do* by nature the things contained in the law;” the *second*, from the testimony of Conscience when it “beareth witness;” and the *third*, from the busy play of their thoughts or reasonings, when “they accuse or else excuse one another.” The first is derived from the current morality of the world, which, notwithstanding the degeneracy of human nature, indicates the existence of a law, and the general recognition of its claims in every country and in every age. That morality is grievously defective, both in the principle from which it springs, and in the extent to which it is observed; it is widely different from the holiness which Revelation inculcates, and utterly inadequate to satisfy the claims of Divine justice; but it is a reality notwithstanding; and it is highly useful for the purposes of the present life, since it is mainly by its influence that society is kept together. The existence of a common morality, although it be of a secular rather than of a spiritual nature, evinces the reality and the general

* Romans ii. 14.

recognition of a Moral law ; and this proof is not affected by the actual prevalence of sin, for the very knowledge of sin, as such, implies a law or common standard from which sin is a manifest deviation. The laws which Heathen nations have enacted against vice are so many public proofs of this common standard of moral conduct; the whole system of civil government is founded upon it; and the very language of every tribe contains terms expressive of moral distinctions, which imply the existence of a moral faculty, and a standard of right and wrong. Language is justly said to be “the least fallacious of Historians,—the enduring type of the visible world, and the shadow of the invisible; and men might as easily create for themselves a sixth sense, as fabricate and retain in use a system of terms having no archetypes in nature.”* Now, there is a Moral terminology in every language, descriptive of the *actions* of men, and the ideas expressed by the words *ought, duty, right, wrong, goodness, generosity, gratitude, justice, truth, honour*, have types, of various characters, and cast in different moulds, but of similar import, all over the world.

The *second* part of the Apostle’s proof is derived from the *inward conscience*, as the *first* was from the *outward conduct*, of men: “Their conscience also bearing witness.” The term Conscience, which is often used to denote all that is moral in our nature, is here appropriated to a part of it, and employed, in its strict and limited sense, to denote the faculty which *apprehends and applies the law*. Our older Divines were wont to speak of the *συνηρησις*—the law, the depository or storehouse of moral principles; and the *συνειδησις*, the witness which compares *the law with the life*, and approves or blames accordingly.† As

* MR ISAAC TAYLOR, “Man Responsible.”

† G. AMESIUS, “De Conscientia,” p. 3.

a witness, it gives an attestation to the same truth (τῷ αὐτῷ, i.e., the ἐργον νομοῦ formerly mentioned),* because it takes notice both of God's law and of man's conduct; it marks the agreement or disagreement of the one with the other; and hence it is fitly denoted by terms which imply a *conjoint knowledge*,—συνείδησις and con-scientia. Conscience, in this sense, presupposes a law, and therefore proves it. As a "witness" it testifies of certain actions, taking cognisance alike of *the fact* that such actions were done, and also of their agreement or disagreement with *the law*. The witness-bearing of Conscience, therefore, is a distinct proof of the existence of a moral nature in man, or of a moral law by which he is "a law to himself."

The *third* part of the Apostle's proof is derived from the thoughts or reasonings of men, when these "either *accuse or excuse* one another." It is of little consequence whether we interpret the words as referring to the conflict of our thoughts with one another when we are judging of our own conduct, and passing through that mental struggle which is occasioned partly by the accusing voice of conscience, and partly by our earnest desire to excuse or extenuate our guilt,—or whether we understand them to refer to "the dialectic reasonings or disputes betwixt man and man," in which the perpetual recurrence of "charges, recriminations, and defences,"† affords a practical testimony of the same kind. The expression is sufficiently general to include both: and in each we discern the most conclusive evidence of the reality and authority of a moral law, to which all men, however reluctantly, are compelled to yield their practical homage.

There is often a controversy and a conflict in the breast

* MOSES STUART, *in loc.*, p. 111.

† DR CHALMERS, "Lectures on Romans," *in loc.*

of an individual when he is judging of *his own* conduct : and with reference to the very same fact, he may hear the *accusing* voice of conscience, while he endeavours to *excuse* himself. Perhaps no evidence in favour of the indestructible authority of a Moral Law is more conclusive than that which arises from this source. The painful efforts which a man makes to justify his conduct when he is accused by conscience, show that, if he be a rebellious, he is *a real*, though *reluctant*, subject still. He sins : and immediately his own thoughts are busily at work in *excusing* ; but why *excuse*, if there be no *accusation* ? why this busy self-defence, if there be no criminal charge ? why this incessant advocacy, as of a culprit pleading “ not guilty,” if there be no prosecutor within his own breast, charging him with crime, pressing home the proof, and demanding the penalty ? By having recourse to such expedients, he may succeed in allaying the fears which conscious guilt inspires : but the mere fact that he is compelled to employ them is a proof that he is *self-accused*, and that there is a *law* within, and a living *witness* there.*

But if the existence of a Moral Law be evinced by the reasonings of an individual on his own conduct, it is still more apparent in the judgments which he pronounces on the character of his fellow-men ; for here his moral perceptions are not obscured by the influence of those passions which often distort them in his own case. It may be marked, therefore, as a proof of the discriminating sagacity with which the Apostle selects the strong points of his case, that he gives so much prominence, here and elsewhere,† to the judgments which every man forms on the character and conduct of his neighbour. The proof is alike clear and strong. For, let a man be

* For an instructive example, see Luke x. 29.

† Romans ii. 1-5.

ever so much disposed to excuse or justify his own conduct, he will pronounce a true verdict on the very same conduct in other men; insomuch that it is only necessary to exhibit *his actions in a state of separation from himself*, or to transfer them, by supposition, to the person of another, in order to call forth his indignant condemnation. The case of Nathan and David will occur to every mind. For this reason, the Golden Rule teaches us to make as it were an *exchange of persons*; to suppose the act which we mean to do towards another, to be done by another towards ourselves; and then to judge of *our* duty as we would of *his*, were we placed in his circumstances, and he in ours: a rule which is designed chiefly as a corrective of that self-partiality by which, as Sir James Mackintosh remarks, our moral judgments are too apt to be influenced when they relate to our own character or conduct. In his eloquent discourse on Conscience, Bourdaloue refers to the different decisions which men pronounce on their own conduct and that of others; and makes a felicitous application of the principle which is implied in the Apostle's reasoning: "We have a conscience enlightened,—for whom? for others: and a conscience blind,—for whom? for ourselves: a conscience rigidly exact for others, even to scrupulosity; and over-indulgent to ourselves, even to license. How will God act? He will confront these two consciences, to condemn the one by the other (*il confrontera ces deux consciences, pour condamner l'une par l'autre*), for it is a principle of faith that we shall be judged as we have judged others, and that God will apply to us the same measure which we have meted to them."*

We have adverted to the statements of Scripture on this subject, not for the purpose of deciding the question by its inspired *authority*, but because they are so true to

* M. BOURDALOUE, "Sur la fausse Conscience," p. 117.

nature as to find a ready response in every reflecting mind. Yet the doctrine which affirms the existence of a Moral Law or Faculty, as a constituent part of human nature, has been assailed by objections, both of a *speculative* and *practical* kind. Philosophical Utilitarians deny the doctrine, and attempt to account for all Moral phenomena, by ascribing them to our experience of the *consequences* of different actions, combined either with the instinct of self-preservation, or the natural sense of pleasure and pain. The Utilitarian theory, considered as a speculative system, is the only formidable attempt to set aside a Law properly Moral. It is often stated as if it referred only to one of the *two* great questions in Ethical Science,—the question which relates to *the criterion of virtue*, or that common quality in different actions which is the object of moral approbation; but in its more general form, it embraces equally the other question, which relates to the nature and origin of our moral sentiments themselves, and seeks to account for them by ascribing them partly to our individual experience, and partly to the collective experience of the race, in regard to the beneficial or injurious tendency of certain lines of conduct. It ignores or disowns any inherent Moral law, or any connatural faculty of Conscience. In this, its most comprehensive sense, it is taught, although with considerable diversity, by Volney, D'Holbach, and Bentham.* The respectable name of Paley has been commonly, but perhaps erroneously, supposed to belong to the same class; he taught that utility may afford a *practical test of the morality* of actions, but does not seem to have adopted the extreme view which *resolves morality into utility*.† By far the ablest and

* M. VOLNEY, "La Loi Naturelle."

M. D'HOLBACH, "Système de la Nature."

JEREMY BENTHAM, "Deontology," 2 vols.

† H. O'CONNOR'S "Connected Essays," pp. 12-17.

most self-consistent theory of Utilitarianism is developed in Tucker's "Light of Nature;" a work which may be described as the quarry whence most of the stones have been hewn which later builders have employed in rearing their respective fabrics, and which combines much profound thought with the lightest *badinage*, so that the serious parts of it stand strangely contrasted with passages of broad humour, and even of grotesque absurdity.

Stated generally, and without reference to the peculiarities of its individual advocates, the theory amounts, in substance, to a denial of the existence of any moral law or faculty in human nature, and an attempt to account for the current moral distinctions, by ascribing them to our natural love of pleasure and aversion to pain. The *radical defect* of this theory may be easily discerned: it neither offers, nor is it capable of affording, any account of the first and most fundamental idea of Ethics; it does not, and it cannot, explain the meaning and origin of the word OUGHT. Like the play-bill which announced the tragedy of Hamlet, with the part of Hamlet left out, it is a system of Deontology, which gives no account of the cardinal idea of DUTY. A sense of obligation and responsibility is one of the most familiar elements of human consciousness, and it should be the great object of Ethical Science to investigate its nature and source; but in this system no attempt is made to explain or to account for it. We are told, indeed, that every man seeks his own satisfaction, and it is tacitly assumed that he *ought* to seek it by such means as experience declares to be conducive to that end. But *why ought he?* What is there in the relation between desire and its gratification that can either suggest the idea, or impose the obligations, of Duty? That all men *ought* to pursue their chief good may be true: but the

idea implied in that word *ought*, must be derived from a Moral Law or Faculty, and cannot be explained by any system of mere Utilitarian Ethics. Such a system, indeed, can impose no valid obligation, and exert no practical influence, on a man *whose taste has become thoroughly depraved*. "Against every system," says Sir James Mackintosh, "which professes to appeal exclusively to the desire of happiness, without reference to the higher principles of our nature, there must ever lie this unanswerable objection,—that, while it excludes from our view some of the chief elements of happiness or misery, it virtually makes our corrupted tastes and inclinations the arbiters of what we should seek or shun; and thus, if a man be so thoroughly depraved as to prefer the pleasures of sin to the blessings of holiness, he has only to avow that preference, and act upon it, and this theory has nothing to say to him: it places every thing on the footing of a man's taste, and he has only to say—'Evil! be thou my good!'—this answer would be conclusive, were we to deal with individuals on the strength of a theory which made no other account of Moral distinctions than as they stand related to the desire of enjoyment."*

With most minds, however, the *practical objection* derived from the general prevalence of vice, and the actual diversities of moral opinion or sentiment, will have greater influence than any speculative system in shaking their confidence in a uniform and universal moral law. With reference to the diversities of moral opinion and sentiment, they may, we think, be easily and satisfactorily accounted for, in perfect consistency with the supposition of a moral law or faculty; while the

* SIR JAMES MACKINTOSH, "Preliminary Dissertation," p. 330.
PROFESSOR SEDGWICK, "Discourse," pp. 52, 67, 126.

existence of *any* moral opinion or sentiment cannot be explained, if that supposition be denied. With reference, again, to the prevalence of vice, the mere fact that it is known and condemned, *as such*, is a sufficient proof that there is a recognised standard of right and wrong; while this proof is greatly strengthened by the evidence which is often exhibited—*of a latent conscience in the breasts of the wicked*.

We are not to suppose that Conscience has no existence, or even that it has ceased to act, merely because it is often ineffectual in preventing the commission of sin; on the contrary, some of the strongest proofs of the indestructible authority of a Moral Law may be derived from those very cases in which it is practically disregarded, or even theoretically disowned. These proofs arise from certain significant manifestations of a latent sense of right and wrong, which continues to lurk in the heart, and which influences, to some extent, the language and manners of men, even at the time when, judging from their habitual wickedness, we might be ready to suppose that Conscience was utterly dead within them. The man who practically disregards all the dictates of morality, and laughs to scorn every authority that would impose a restraint on the indulgence of his guilty passions, will be found, nevertheless, to carry about with him, as an inmate of his own bosom, an invisible but indestructible witness to the Divine law; and often, when he least thinks of it, he exhibits to every thoughtful observer of his conduct unequivocal evidence that all his efforts to quench the light of Conscience have been unavailing, and that he has still a law in his mind by which he is and ever must be “a law to himself.” There may be fire where its presence is indicated, not by flame, but by smoke,—a token of real but imperfect combus-

tion; and so the sparks of conscience may be smouldering among ashes,—but they are sparks of conscience still.

A striking proof of this may be found in the fact, that no man, however dead to all moral sensibility, could endure the thought of disclosing without reserve his secret thoughts, feelings, and actions to any one of his fellow-men. Another may be found in the ready response which conscience gives forth when any charge, or even insinuation, of guilt is preferred and pressed home so as to awaken and arouse it. Sometimes a significant look or word from another, indicating a knowledge or even a suspicion of his sin, will be sufficient to call up a self-consciousness which he cannot repress; and the blush of shame, or the averted eye, or the quivering lip, or the passionate expression of proud and angry defiance, will show that he is self-convicted and self-condemned. Another proof may be found in his very attempts to deny, to conceal, or to excuse his guilt,—for why deny, conceal, or excuse what he knows to be innocent or praiseworthy? And still another may be found in the fact, that some casual occurrence often serves to call up, with irresistible power, the recollection of sins long since committed and apparently forgotten,—when actions which have been buried for years in deep oblivion have, as it were, a sudden and awful resurrection. The unexpected return of such recollections is one of the most interesting phenomena of Memory, but it is Conscience that recognises the true character of the actions which are thus recalled to its bar, showing that all the while, when it seemed to slumber, it was still alive, and that when it awakes,—as awake it must sooner or later,—it is still quick to discern, and prompt to condemn.

2. Conscience is a witness for God.—If every other part of our nature,—whether Organic, Sentient, Instinc-

tive, or Intellectual,—affords evidence of intelligent design and omniscient wisdom, we can hardly fail to expect that similar evidence may be found in that Moral Faculty, which claims a rightful supremacy, as if it were the vicegerent of a Higher Power. Many distinguished writers, accordingly, have recognised in Conscience the most direct and practical witness to the Being, Perfections, and Government of God.

“It is in these phenomena of Conscience,” says Dr Chalmers, “that Nature offers to us far her strongest argument for the moral character of God. . . . When in the bosom of every individual man we can discern a Conscience, placed there with *the obvious design* of being a guide and a commander, it were difficult not to believe that, whatever the partial outrages may be which the cause of virtue has to sustain, it has the public mind of the universe in its favour, and that, therefore, He who is the Maker and the Ruler of such a universe is a God of righteousness. . . . No one can mistake the *design* of the artificer in putting a regulator into a watch. It was to make it move regularly. And as little should we mistake the design of the Creator in putting a conscience within man’s bosom. It was to make him walk conscientiously.”* “Conscience,” says Dr M’Cosh, “is a ready and powerful means of *suggesting* the idea of God to the mind. We believe that it is by it, rather than by any careful observation of nature, material or spiritual, that mankind have their thoughts directed to God. It is not so much by what he sees around him, as by what he feels within, that man is led to believe in a Ruler of the world. A Conscience, speaking as one having authority, and in behalf of God, is the monitor by which he is reminded most frequently and emphatically of his

* DR CHALMERS, “Works,” I. 323.

Governor and his Judge. It seems to be possible to build upon the very fact of the existence of the Conscience, an independent argument in favour of the being of God. The existence of the Law in the heart seems to imply the existence of a Lawgiver.”*

In the truth of these general statements we entirely concur: but perhaps it may be useful to offer a somewhat more articulate analysis of the evidence which may be derived from this source. It affords several distinct and independent considerations which serve, when combined, to establish the Being, and to illustrate the Attributes, of God both as the Creator and Governor of the world.

First of all, *the mere fact of the existence of Conscience*,—a faculty obviously subservient to important practical ends,—affords, like every other part of our complex nature, a manifest proof of *design* in the structure of our mental frame. When the prophet says, “He that planted the ear, shall he not hear? He that formed the eye, shall he not see?”† he proceeds on the principle, that from the nature of our own faculties, we may infer the perfections of our Maker: and if this be true of the eye, and the ear, and the other inlets of knowledge, which are all more or less dependent on our corporeal organization, how much more is it true of Conscience, which takes direct and immediate cognisance of whatever is morally good and evil? We can no more doubt that Conscience was *designed* to make known to us moral distinctions, and thereby to influence and govern our whole life, than we can doubt that the eye was made for seeing, or the ear for hearing, or the intellect for acquiring knowledge.

But Conscience is not to be considered only by itself,

* DR M'COSH, “Method of the Divine Government,” p. 8.

† Psalm xciv. 9.

or as an isolated part of our mental constitution : it is to be considered also in *its relations* to certain other provisions which are adapted to it, and which are evidently designed to be subservient to moral ends. It stands related to the *emotional* part of our nature : and the inherent sweetness of the virtuous,—the inherent bitterness of the vicious affections, are obviously designed, as they are admirably fitted, to supply motives and inducements to obedience.—It stands related to the *sentient and organic* part of our nature : since a sure and invariable connection has been established between virtue and health, vice and disease ; while the body is very differently affected, through the nervous system, by the emotions which are generated by them respectively.—It stands related, further, to all *those interests*,—and they are of great importance in life,—which depend on the good or ill opinion of our fellow-men, and which are liable to be seriously affected by our obedience or disobedience to the Moral Law.—And, finally, it stands related to those *dispensations of Providence* by which God is frequently pleased to vindicate the authority of that Law, and to make it manifest that “verily He is a God which judgeth in the earth.”—In each of these relations, we discern tokens of design, and proofs of wisdom, in the adaptation of means to ends, for the accomplishment of a moral purpose, which is in entire accordance with the natural dictates of Conscience.

The *various functions* which belong to Conscience afford an additional proof. In one aspect, it is a *law* ; in another, a *witness* ; in another, a *judge* ; in another, an *executioner*. As a law, it implies a Lawgiver : as a witness, judge, and executioner, it applies the law, as the vicegerent of a Higher Power ; and every one feels the force of the Apostle’s appeal, “If *our own hearts* con-

demn us, God is greater than our hearts, and knoweth all things." If its legislative functions prove a Lawgiver, its judicial and executive functions prove a Governor and a Judge. Every one must be more or less distinctly conscious, that even in the present world, and within the precincts of his own bosom, a system of judicial reckoning, and, in some measure, of moral retribution also, is going on; for not only does he feel that he is subject to a Law, he feels also that his obedience to that law is immediately rewarded by a sense of moral approbation, while his disobedience is visited by an inward penalty which he cannot escape, and can with difficulty endure. In this marvellous *combination of various distinct functions* in the same faculty, all adapted to important moral ends, we discern a striking evidence of *design* in this part of our mental structure,—while the *nature of these functions* serves to make God known to us both in his personal character, as "holy, just, and good," and in His official relation to us, as a Lawgiver, Governor, and Judge.

We are aware that we may seem to make a great and sudden transition, when we ascend at once from a Conscience within to a God above,—from the phenomena of our own moral nature to the Perfections of a Supreme Ruler. What are we, it may be asked, that we should regard our nature as either a standard or an index of universal morality, still more as a mirror reflecting the moral image of God? By what law of reason are we warranted to infer either the existence or the character of the Supreme Being, from the subjective consciousness of our own minds? There may seem to attach to the attempt a certain degree of presumption; and thus there may spring up, in the mind of a cautious inquirer, a feeling of uncertainty, as if he were walking on insecure ground, or even transgressing his prescribed limits.

But this feeling may be dissipated, by considering how the decisions of the human mind are determined, in other cases, by *laws of thought*, acting spontaneously, and producing immediate and irresistible belief. In every case of Induction, we rise from particular facts to general conclusions ; from what we do know, we infer what was previously unknown. By an immediate intuition, or by an irresistible inference, we rise from the perception of space and time to the idea of Immensity and Eternity ; and from the observation of particular facts to the belief of general laws, and confidence in the constancy of nature. In like manner, there may be, perhaps, an intuitive knowledge of God, occasioned by the consciousness of a Moral Law, and neither requiring nor admitting of a process of logical proof. But if not an immediate *intuition*, this belief is at least an instantaneous and irresistible *inference*, suggested by the phenomena of our moral nature, and confirmed by all known analogies. For the consciousness of a law suggests the idea of a lawgiver ; the experience of inward restraint, rebuke, and reward suggests the idea of government ; and this government being carried on independently of our will, and often against it, suggests the idea of a Will higher than our own, which nature teaches us to regard as authoritative and supreme,—and these are the fundamental elements of Religious Belief.

When a man feels that there is a Law within, interwoven with the very frame and texture of his being,—that this Law operates independently of his own will, and seeks to control and govern it,—that it asserts its supremacy over all his appetites, passions, and habits,—that it is associated with certain feelings of admiration, reverence, and awe, or of remorse, fear, and self-condemnation, which serve all the purposes of a natural sanction of re-

ward and punishment: when he finds within the chamber of his own bosom all the requisites of a court of justice,—a law, a witness, a judge, a sentence, and an executioner; and knows that this system of restraint is not self-originated or self-imposed, while it pervades the whole society of which he forms a part, and controls or overawes the most depraved and desperate of its members,—he is constrained, by his own moral experience, to entertain the idea of a Lawgiver, Governor, and Judge, *who is also the Creator of his soul*,—the Supreme Head of the moral world, who has written a law on his heart by which he is “a law to himself.”

The difficulty of illustrating this ground of religious belief may be said to arise from its very *simplicity*; but no such difficulty occurs in feeling its force, or yielding to its influence. “However difficult from the very simplicity of the subject it may be,” says Dr Chalmers, “to state or to reason the argument for a God, which is founded on the Supremacy of Conscience, still, historically and experimentally, it will be found that it is of more force than all other arguments put together, for originating and upholding the natural Theism which there is in the world. The Theology of Conscience is not only of wider diffusion, but of far more practical influence than the Theology of Academic demonstration. . . . The mind does not stop short at mere abstraction; but passing at once from the abstract to the concrete, from the Law of the heart it makes the rapid *inference* of a Lawgiver. It is the very rapidity of this inference which makes it appear like *intuition*: . . . And this argument, described by all, but with such speed as almost to warrant the expression of its being felt by all, may be regarded, notwithstanding the force and fertility of other considerations, as the great prop of Natural Religion among men.”*

DR CHALMERS, “Works,” I. 330.

CHAPTER V.

THE *FOURTH* PART OF THE PROOF,—FROM MARKS OF DESIGN
IN NATURE.

WHEN the Mind of man looks forth on the scene in which he is placed, he beholds a magnificent spectacle. The mere *coup d'œil*,—the most general survey,—of nature, awakens his wonder and admiration. He cannot gaze upon it without being impressed with a vague but profound sense of the sublime and the beautiful. His imagination is kindled, his emotions excited, and his whole soul becomes instinct with a natural poetry. The stupendous expanse of the sky,—the serene order of the heavens,—the brilliancy of the sun, moon, and stars,—the variegated surface of the earth, with its mountains and plains, its lakes and rivers, its verdant landscapes and awful solitudes,—the vast amplitude of the sea, with its ceaseless currents and periodic tides,—the regular succession of day and night, of spring and summer, autumn and winter,—the genial agency of light and heat,—the sweet influence of dew and rain,—the growth, decay, and reproduction of vegetable life,—the number and varieties of the animal tribes in the earth, the air, and the sea,—the constant stability in the midst of incessant change,—the magnitude of the processes which are constantly going on, with the mighty forces which must be in active operation ; in

these—and many more—the simplest aspects of nature, he finds objects of surpassing interest which arrest his thoughts, and fill his soul with glowing admiration, not unmixed with solemn awe.*

The Poetry of nature comes first,—but it is soon followed by the Philosophy of nature. The mind, arrested by the first view, and fascinated by the obvious charms, of the magnificent scene, is prompted, by an innate and irrepressible curiosity, to examine its structure, to classify its phenomena, and to ascertain its laws: and, acting under the guidance of its own fundamental principles, it rises from individuals to species, from particular facts to general formulæ, and constructs a scheme of Natural Science. But must the Poetry of nature be superseded or extinguished by its Philosophy? Must the sense of wonder and admiration which its first and most obvious aspects awakened, be benumbed and deadened by the *torpedo* touch of Science? Must a closer inspection of its mysteries dispel the fond illusions, or diminish the wonder and admiration, which spring up spontaneously on a more general survey of the scene? On the contrary, are we not prompted to prosecute our inquiries by the conviction that there is a profound *meaning* in nature which we have not yet discovered, many lessons which we have not yet learned, many mysteries which we cannot as yet interpret?—and when, in the progress of our studies, we rise to a higher elevation,—when we acquire a more extended prospect, or obtain a clearer insight,—may we not expect that every fresh discovery will only deepen our first impressions, and augment, while it enlightens, our admiration? Philosophy is not necessarily destructive either of Poetry or of Faith? For what is Philosophy but a systematic

* FENELON, “De l’Existence de Dieu.”

interpretation of Nature?—and if Nature contains within itself the germs of Poetry and the grounds of Faith, must not such an interpretation serve only to elicit the one, and to illustrate the other? Is there no significance in the fact that all Nature is *symbolical*,—that it lends us imagery for the poetical expression of our highest thoughts, and our deepest feelings? If it be true that Mind invests Nature with its own forms, is it not also true that there is something in Nature that corresponds with human thought?—

“What if earth
Be but the shadow of Heaven, and things therein
Each to other like, more than on earth is thought?”

And when man looks on Nature, and beholds there, reflected as in a mirror, the ideas of his own reason;—when he discovers in that outer tablet of creation a visible transcript of the same intelligence of which he is conscious within;—when he finds that it has a meaning, and that its meaning becomes intelligible only in the light of his own mental laws;—that he is dissatisfied until this meaning is discovered, and rests in it with entire acquiescence as soon as it is clearly discovered;—when he finds such a harmony between his own Mind and the Universe as qualifies him to become its interpreter, and such an analogy between what he knows within and what he sees without as enables him to discover indications of the same *thought* in Nature of which he is conscious in his own breast;—when from certain rudimentary ideas of number, figure, and magnitude he constructs a system of necessary truth, discovered, in the light of its own self-evidence, to be independent of all conditions of space and time, and applicable everywhere throughout the Universe, and, carrying this light in his hand, explores the secrets of the earth and heavens, and finds that the

same laws which he had slowly elaborated in the secret chambers of his own thoughts, are visibly impressed on the fabric of Nature,—that they enable him to explain the movements of the heavenly bodies,—and that all things are ordered “according to number, measure, and weight;”^{*}—how can he fail to believe, that Nature, which is so faithful a mirror of human thought, is also a symbol of the Divine; and that he is called not only to be an Interpreter of its meaning, but a Minister also in that august Temple which God has reared for His own worship and glory?

The sacred writers frequently refer to the volume of Nature, as affording a valid evidence of the being, as well as an instructive illustration of the perfections, of God. In doing so, they speak chiefly of such facts as may be known to all men by their own experience and observation; and they offer no philosophical explanation of these facts, simply because the evidence does not depend on any recondite discovery of science, but on the reign of universal order,—on the manifest adaptation of means to ends,—and the practical uses which are subserved by the existing arrangements of Nature. They refer either to those wise and beneficent methods by which God has made provision for supplying the wants, or promoting the welfare, of His dependent creatures; or to those sublime manifestations of “His eternal power and Godhead” which are exhibited to all in the stupendous works, and the magnificent processes of Nature. These are all patent to the eye of the peasant, not less than to that of the philosopher; and if the latter, aided by telescopic or microscopic power, is enabled to obtain a deeper insight into the secret springs of nature, every discovery

^{*} “*Omnia in mensura, et numero, et pondere, disposuisti.*”—Wisdom xi. 21.

which he makes serves only to illustrate and confirm the grounds on which the popular belief is based. It is to such manifestations that the Apostle refers, when he says that “God never left Himself without witness, in that He did good, and gave us rain from heaven, and fruitful seasons, filling our hearts with food and gladness.”* And similar statements abound in the book of Job, the Psalms, and the Prophets.†

But perhaps the most explicit testimony to the existence of a *valid natural evidence* for the being and perfections of God, is contained in the Apostle’s statement, when, referring to the case of the Gentiles who enjoyed no advantage from Revelation except what might be derived from the broken fragments of a primitive tradition, he says: “That which may be known of God is manifest in them, for God hath showed it unto them. For the invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse.”‡ This testimony is peculiarly full and explicit; and it is the more decisive, because it is given with reference to those who did not enjoy the *direct* light of Revelation. The object of the statement is to show, that they had such means of knowledge as were sufficient to leave them “without excuse,”—or such manifestations of the Divine perfections in the works of nature, as should have convinced them of “His eternal power and Godhead.” The Apostle does not determine the amount, still less does he affirm the correctness, of the knowledge which the Gentiles had *actually derived* from this source; he points rather to the *manifes-*

* Acts xiv. 17.

† Job xxxiii. Psalms civ. 10., lxx. 9. Isaiah x.

‡ Romans i. 19, 20.

tation of the truth on God's part, than to the *acquisition* of it on theirs; to the *means* which they possessed of acquiring this knowledge, although, "holding down the truth unrighteously," and "not liking to retain God in their knowledge," they had failed duly to improve them. To establish this charge against them, it was necessary to show that there did exist a real, valid, natural evidence for the being and perfections of God: and this he does by a brief but pregnant proof, every word of which is profoundly significant. He speaks, first of all, of "that which may be known of God,"*—an expression which implies that, while something may be known of God, much must ever remain incomprehensible,—and which is afterwards explained by the phrase,—"even His eternal power and Godhead." Of this he says that it is "manifest in them," and that "God hath showed it unto them,"† that it is a clear manifestation, and even a Divine exhibition, of the truth. And from what source is this manifestation derived, or through what medium is it conveyed? Ever since "the creation" (or founding) "of the world," the invisible things of God are clearly seen, "being understood by the things that are made,"—the *invisible* are made *visible*,‡ how? being *understood*,§—discerned not by the bodily eye, but by reason acting according to its own laws, and pronouncing its *judgment* on the phenomena which are presented to it. And where are these phenomena exhibited? Or through what medium is the manifestation made? In his **WORKS.**||

This appears to be a very explicit testimony to the

* "Το γνωστον του Θεου," which may signify either the *cognoscibile* or the *cognitum*. See LAURENTII, "Δυσσητος," p. 2.

† Φανερον;—εφανερωσε.

‡ Αορατα,—Καθαραται.

§ Νοοῦμενα.

|| Ποιημασι.

existence and validity of a real, natural evidence for the being and perfections of God; although some Socinian writers have attempted to show, that by “the things that are made” we are to understand, not the visible works of nature, but the new spiritual economy which was introduced by Christ and his Apostles;* while others,—professing very different opinions from theirs on other subjects, but agreeing with them in denying the possibility of knowing God otherwise than by means of a supernatural Revelation,—have maintained that the Apostle assumed the knowledge of God’s *existence*, as having been acquired, directly or through tradition, from *that* source, and that he refers to the book of Nature only as a confirmatory proof, or in illustration of His *perfections*.† We have already said that it is not necessary for a Christian Theist to embarrass himself with the question as to the priority of Reason or of Revelation in the discovery of “that which may be known of God,” since, according to his belief, the two testimonies,—the natural and the supernatural,—have never been separated, but have been conjoined “from the creation of the world:” and all that he is at all concerned to maintain is fully conceded, if it be admitted that there is a real, valid, natural evidence, such as may be appealed to in proof or in confirmation of our belief in the existence and attributes of God.

That evidence, in so far as it is adduced or referred to in Scripture, consists mainly of those *facts* in the constitution and course of Nature, which indicate *intelligence*, *design*, and *power*; and, especially, such as exhibit a wise and beneficent provision for the accomplishment of great practical ends. The cases in which such marks

* TURRETINE, “*Institutiones*,” I. 8.

† DR JOHN ELLIS, “*The Knowledge of Divine Things*,” pp. 206–209.

of intelligent design and provident forethought may be clearly discerned, are so numerous and diversified that it is impossible to exhaust the evidence by any exhibition of it; nor is it necessary to enumerate them all, since the grand conclusion may be equally well established by means of some select examples. But while the *argument* may be as conclusive from a few as from many, the *impression* of the argument on different minds may be deepened by making use of a considerable variety of instances,—since a fact which strikes one mind may not be equally convincing to another, by reason of the diversity of their mental tastes and habits: and hence, while we would avoid the tediousness of a vast multiplicity of details, we would equally avoid the meagreness of a scanty proof. For both ends, we think it advisable to *classify the examples under distinct and definite heads*, and to adduce *as many specimens under each* as may be sufficient to illustrate the whole class to which it belongs. We shall take them partly from the Material, partly from the Intellectual, and partly from the Moral world, on purpose to show that the Mind discerns outwardly an exact counterpart and faithful reflection of what it is conscious of within; and that all these departments are so related as to bespeak the Unity and Supremacy of one presiding Intelligence, one governing Will.

In doing so, we shall merely state *the facts*, and the conclusions which they seem to warrant; reserving for future consideration *the principles* that are involved in the process of inference, or the validity of the proof, in so far as it depends on the fundamental laws of human thought. We present the *facts*, and leave them to make their own natural impression on every reflecting mind, being well assured that, as soon as they are intelligently understood, the mental laws which are involved in the

proof will come into spontaneous operation, and thus afford the best preparation for a critical estimate of their force and value at a subsequent stage.

ILLUSTRATIVE EXAMPLES.

§ 1. The *first* class consists of examples, designed to illustrate the adaptations which exist between *the Terrestrial and Celestial economies*.

The Earth stands intimately related, not only to the Atmosphere by which it is surrounded, but to the Solar System of which it forms a part; and many of the most stupendous processes and most beneficent provisions in Nature depend on the relation thus established between this lower world and the remote orbs of the sky.

1. A striking example of this class may be seen in *the provision which has been made for watering the earth*, and the method in which the most powerful forces are brought into action *for this end*. Water is essential to the support of life and the growth of vegetation; but water, in a state of purity, and not stagnant, but flowing. The same element which, in this state, makes “soft the ridges of the earth,” and nourishes the roots, and ascends into the stems and branches of plants and trees, would produce universal desolation and decay, were its constitution materially changed by the intermixture of other substances, or were it simply to remain stagnant in the same soil. It must, therefore, be administered pure,—and it must be carried off. And what is the provision which has been made for watering all the islands and continents of the world? The sun, by its heat, acting on the lakes and rivers, and even on the marshy soil, but, above all, on the vast surface of the sea, converts, every

day, a portion of their waters into the form of an impalpable, and often invisible vapour,—that vapour rises gradually into the air, containing nothing but what is essential to the end in view,—and leaving behind all the impurities,—the salts,—the feculence,—by which its wholesomeness had been impaired; the water has been subjected to a process of distillation;—it ascends to the region of the clouds, and is suspended, in mid-heaven, for days and weeks together:—there, by the action of a colder atmosphere, it is condensed,—and the influence of other agents, such as the electric fluid, is brought to bear upon it, till, in due season, it is precipitated from those vast reservoirs, not in a drenching and destructive deluge, but in small, single drops,—and falls on the earth so gently, that the lowly violet can receive it into its bosom unhurt!* In winter, when the stems of plants must be hardened and the soil pulverised by frost, it comes down in flakes of snow, which, falling softly on the earth, cover it as with a fleecy mantle, and preserve the seeds and roots which might otherwise have been destroyed. But let the rain or snow which falls in a single year remain stagnant in the soil, and, instead of being the nutriment, it will become the poison, of vegetation; and, therefore, it is carried off again,—partly by the same action of the sun, converting it once more into vapour, and partly by the water-courses which run from all lands into the sea; and thus from year to year continually the same vast process is going on, whereby immense volumes of water are heaved up into the sky, so as to diffuse an equal supply of moisture over the largest continents, and to refresh alike the richest landscape and the loneliest wilderness!

The *beauty* of this arrangement must be discerned intuitively by every one who understands it; and with the

* M. DESDOUIT, "L'Homme et la Creation," p. 110.

same intuitive certainty will every thoughtful mind perceive its *utility*. The practical benefits which flow from it, however unheeded by the careless observer, will be duly appreciated by every agriculturist, if he will only consider how he would be situated were this magnificent process superseded or suspended. Without a regulated supply of moisture, agriculture is impossible. But let him even suppose that the mere element of water were supplied to him, in the lakes, and rivers, and oceans by which he is surrounded,—while no provision had been made for converting it into vapour,—and none for elevating it to the region of the clouds,—and none for condensing it there,—and none for scattering it in rain or dew-drops over his fields ;—in a word, let him conceive that the sun's action on the waters of the earth were suspended: could he hope, by any amount of manual labour or mechanical force, to supply the want of those cloudy reservoirs, and those natural showers, by which the whole earth is nourished and refreshed, unless that want were compensated by some other provision, equally natural and constant? No doubt, some other provision might be made, or some *compensation* found for the want of rain,—as in the case of Egypt, where the land, deprived of natural showers, was watered by the rising of the Nile;* but, assuredly, if this be an exceptional case, it is *such* an exception as serves only to confirm the rule. And the wisdom, as well as the utility, of the common arrangement, will be still more clearly discerned, if we consider that, while agencies of tremendous power are at work, yet these agencies are so nicely adjusted to one another, and so wisely proportioned, both to the materials on which they act, and to the ends for which they are employed, that, speaking generally, the

* Deuteronomy xi. 10.

earth suffers neither through redundancy nor defect, but receives year after year a supply, which varies within certain limits, but keeps ever to a *mean average* proportioned to its wants, and sufficient for the support and perpetuation of all its living tribes. And this is the more wonderful, because,—were either the sun more or less powerful,—or were water more or less easily convertible into vapour,—or were the magnitude of the sea, as compared with that of the dry land, materially different from what it now is,—the earth must necessarily suffer either from drought or from deluge. But powerful as is the action of these forces, and vast as is the scale on which the process is conducted, we observe a certain uniformity, which, on the whole, is demonstrably conducive to the end in view,—and which bespeaks the wisdom of One who could adjust the balance of such forces, and the power of One who could bend them all to the accomplishment of His Will.

To this beautiful example the sacred writers frequently refer. Nothing can be more exquisite than the words of the Psalmist:—"Thou coveredst the earth with the deep, as with a garment; the waters stood above the mountains. At thy rebuke they fled, at the voice of thy thunder they hasted away. They go up by the mountains, they go down by the valleys, unto the place which Thou hast founded for them. Thou hast set a bound that they may not pass over, that they turn not again to cover the earth. He sendeth the springs into the valleys, which run among the hills. They give drink to every beast of the field; the wild asses quench their thirst. By them shall the fowls of the heaven have their habitation, which sing among the branches. He watereth the hills from His chambers; the earth is satisfied with the fruit of thy works. He causeth the grass to grow for

the cattle, and herb for the service of man, that he may bring forth food out of the earth. . . . O Lord ! how manifold are Thy works ! in wisdom hast thou made them all.”*—“Thou visitest the earth and waterest it ; Thou greatly enrichest it with the river of God which is full of water ; Thou *preparest them corn*, when thou hast *so provided for it*. Thou waterest the ridges thereof abundantly ; Thou settlest the furrows thereof ; Thou makest it soft with showers ; Thou blessest the springing thereof. Thou crownest the year with thy goodness, and thy paths drop fatness. They drop upon the pastures of the wilderness, and the little hills rejoice on every side. The pastures are clothed with flocks,—the valleys also are covered over with corn, they shout for joy, they also sing.”† “Let us now fear the Lord our God, that giveth *rain*, both the former and the latter, in his season ; He reserveth unto us the appointed weeks of harvest.”‡

2. Another beautiful example, belonging to the same class, may be found in the connection which subsists between *the system of vegetable life on the earth's surface*, and *the arrangements of the Solar System itself*.

The laws of Vegetation are adapted to the laws of Astronomy. No phenomenon is more familiar than the alternation of day and night ; and none may be more easily explained, seeing that it depends on one simple fact, the revolution of the earth round its own axis once in about twenty-four hours. This is the law of our planet, and related as the earth is to the sun, it necessarily implies the alternate exposure and non-exposure of the same surface to the solar beams. The habits both of plants and animals are adapted to this law,—the habits of animals, which require alternate seasons of wakeful-

* Psalm civ. 6-14.

† Psalm lxxv. 9-13.

‡ Jeremiah v. 24.

ness and sleep, of labour and repose;—and the habits of plants, since constant night or constant day would derange their functions, impede their growth, and, perhaps, destroy their being.

But there is another phenomenon, equally familiar to all;—the succession of the Seasons, spring and summer, autumn and winter, which effect a great alteration on the face of universal nature, and are essential, in fact, to some of its highest ends. This regular progression of the Seasons depends on the annual rotation of the earth round the sun. Now, it so happens that while, as a part of the great Astronomical System, the earth moves round the sun in a year, the plants and vegetables on the earth's surface do also, in the same time, fulfil their functions; they germinate, they grow, they flourish, and bear fruit (at least all of them on which human life depends), in the course of the same term which is prescribed to the earth's motion round the sun,—a marvellous adaptation of things terrestrial to things celestial! a striking proof that the grandest laws of the firmament are adjusted to the circumstances and wants of this little planet! On observing this connection between the two, an accomplished writer observed, with felicitous brevity of expression, that “*the Vegetable Clock-work is so set as to go for a Year;*” * and when we consider that, had the structure of vegetables required a longer period before they could reach maturity, a premature winter might have arrested its growth before the harvest was ripe, or while as yet the tender ear had only begun to form, can we fail to admire the wisdom which has so determined the period of vegetation in harmony with the periodic revolution of the earth, as to secure the completion of the one during the course of the other?

* DR WHEWELL, “Bridgewater Treatise,” p. 22.

The sacred writers frequently refer to the alternation of day and night, and the succession of the Seasons, as illustrative of the wisdom and providence of God. “The heavens declare the glory of God, and the firmament sheweth his handy-work. Day unto day uttereth speech; night unto night teacheth knowledge.”—“He appointed the moon for Seasons; the sun knoweth his going down. Thou makest darkness, and it is night, wherein all the beasts of the forest do creep forth. The sun ariseth; they gather themselves together, and lay them down in their dens. Man goeth forth unto his work, and to his labour until the evening. O Lord! how manifold are thy works! in wisdom hast thou made them all.”*

3. Another example of a similar kind, but depending, in some respects, on distinct considerations, may be found in the relation which subsists between the *universal law of gravitation*, whereby the movements of the heavenly bodies are regulated, and the more *special law of capillary attraction*, which is essential to the growth of plants and vegetables on the surface of the earth. The same power which attracts the earth to the sun, and which pervades the whole planetary system, acts also in attracting all things here towards the earth's centre. The precise intensity of this force admits of being calculated; and it is found to be proportional directly to the mass, and inversely to the square of the distance. This force must be overcome, in order to the production of a single stem of corn, or the growth of a single tree; for the moisture which is essential to vegetation gravitates like every thing else towards the earth's centre, and must be raised up, by some countervailing power, so as to promote the growth and productiveness of plants. Now, whether it be by natural suction, or by capillary attraction, or by

* Psalm xix. 1; civ. 19; also Job xxxviii. 12.

whatever other means,—the fact is certain that plants, even the most feeble and delicate, not less than the gigantic trees of the forest, are so constructed that they take in a sufficient supply of moisture, and retain it in all their branches and leaves; and the power by which this is effected is so nicely adjusted or proportioned to the end designed, that the sap ascends without either stopping short of, or exceeding, the point at which it is required. If either the size of the earth were greater or smaller than it now is,—or, if its relation to the planetary system were materially different,—or, if the force of capillary attraction were increased or diminished,—this end would not be attained: the sap would either be insufficient to raise the plant to maturity, or it would be redundant and overflow. But, in the admirably balanced forces of nature, we see a manifestation of that Divine Wisdom which has adapted the *internal powers of every little plant* to the *tremendous forces which act on the largest planets*.

4. Another example, belonging to the same class, may be found in the relation which subsists between the kindred, or closely connected, agents, *Light and Heat*,—both derived mainly from the Sun,—and the constitution, structure, and wants, both of *the vegetable and animal tribes* existing on the surface of the earth. The evidence, in this instance, does not in the least depend on any theory explanatory of the mode in which Light and Heat are produced or propagated,—but simply on their manifest adaptation to useful ends, and their admirable adjustment, both to the media through which they are transmitted, and to the structure and organs of those beings for whose benefit they are designed. They are intimately connected, yet widely distinct. They are usually in a state of combination, as in the solar rays or the flame of combustion; but heat may exist without any

visible light, and luminous appearances may be accompanied with no sensible increase of temperature. Both are derived mainly from the sun; but both may also be produced, or rather elicited, by chemical and mechanical action. Both are transmitted, not instantaneously, but progressively; and the intensity of each varies inversely as the square of the distance.* The velocity of light is estimated at eleven millions of miles in a minute, and it is computed to traverse the whole distance between the sun and the earth in about eight minutes and one-eighth, —proceeding ever in a rectilinear course, and passing through space without obstruction, although streams of rays from millions of suns are continually crossing each other. It is one of the most familiar, and yet one of the most mysterious, phenomena of Nature. It is selected by the sacred writers as the liveliest natural emblem of God himself—for “God is Light, and in Him is no darkness at all;” “He covereth Himself with Light as with a garment:”—and the inconceivable rapidity of its motion, as well as the apparent ubiquity of its presence throughout the universe, aid us in forming some conception of the attributes that may belong to a pure Spirit. Whether it be, as some have supposed, a kind of imponderable matter emitted from the solar orb, or, as others have thought, the result of a material elastic fluid, pervading all space, and set into undulatory motion by the suns and planets,—it is clear, in either case, that the law, whether of projectile force or of undulatory motion, must have been most skilfully adapted to the ends for which Light is designed. The subsidiary laws by which it is either

* PROFESSOR VINCE of Cambridge, “Confutation of Atheism from the Laws and Constitution of the Heavenly Bodies,” pp. 14–28.

DR M'CULLOCH, “Proofs and Illustrations,” II. 319–352. This original and independent, but somewhat eccentric writer, discusses the subject in detail: our limits compel us to be brief.

reflected or absorbed by some bodies, and also directly transmitted or variously refracted in certain media, afford additional evidence of skilful adjustment and intelligent design,—while the exquisite adaptation of the *organs of vision* in all animals, both to the *laws of light*, and to the *medium* through which it is conveyed to them, places the cope-stone on this part of the proof.

The laws of Heat are neither less wonderful, nor less fraught with convincing evidence, when they are viewed in connection with the existing arrangements of nature. Heat is derived chiefly, but not exclusively, from the sun: it is distributed partly by conduction, and partly by radiation: it exists either in an active and sensible, or in a latent and imperceptible state; in a latent state, it preserves the atmosphere in a gaseous, and the sea in a fluid, form; in an active state, it produces those currents both in the air and the ocean, which keep up a constant and healthy circulation, and maintain an average equilibrium of temperature. A certain inequality in the distribution of Heat arises necessarily from the spherical form of the earth and its periodic revolutions, diurnal and annual; but several subsidiary provisions are made,—partly by the different conducting power of some bodies,—partly by inequalities in the radiating power of others,—and most of all, by the power granted to man to discover and make use of the means by which either natural heat may be retained, or artificial heat supplied,—which serve, in a great measure, to correct these inequalities, and to preserve life, and even comfort, in the most different climes.

It cannot be necessary to enlarge on the manifold uses of Light and Heat, or on the manifest proof which they afford of wise adjustment and intelligent design. We shall only observe that, had the sun's rays been either

much more, or much less, powerful than they are,—or, had they either consisted only of Light, or only of Heat,—or, had they been conveyed through a medium of much greater or less density than that which belongs to the existing atmosphere,—or, had our visual organs or our nervous system been differently constituted,—or, had both light and heat been distributed as they now are, but without the subsidiary provision of clothing and fuel,—on any one of these suppositions, they would not have been adapted to the constitution, and might even have been destructive to the being, of the various vegetable and animal tribes. It is true, these tribes might have been differently constituted; and, in that case, other laws for the distribution of light and heat might have been established,—as, indeed, there is every reason to suppose is actually the case in the other bodies of the planetary system, if they be inhabited by sentient beings: but, *constituted as this world is*, the laws of nature are so adapted to it as to afford such an average supply of light, and such a mean equilibrium of temperature, as is suited to the wants, and conducive to the welfare, of all its living tribes. The proof does not depend on the *mere laws* of Light and Heat, for the laws might have been different from what they are on the earth, and they may be actually different elsewhere; but it consists in the manifest *adaptation of these laws* to the constitution of this world, and their subserviency to important practical ends. And here we have another striking instance of the adjustment which subsists between things celestial and things terrestrial.

5. Another example, belonging to the same class, may be found in the relation which subsists between *the regulated movements of the Heavenly bodies*, and *the periodic recurrence of tides in the waters of the ocean*.

The natural cause of the Tides is easily explained, and is now universally admitted. The rising and falling of the water in the ocean, *twice* in little more than twenty-four hours, must have been observed from the earliest antiquity: but it was reserved for the modern Astronomy to afford an adequate explanation of this singular phenomenon. It is evident that the earth, in revolving round the sun under the law of gravitation, must necessarily expose different parts of its surface in succession to a higher attraction, in proportion as they came nearer to the central orb; and that, for the same reason, it must necessarily expose different parts of its surface in succession to a higher attraction, in proportion as they came nearer to the body of its own satellite,—the Moon. Where that part of its surface which came into nearest proximity either to the Sun or Moon, but especially to the latter as being less remote, was covered with the water of the ocean, that fluid element would be more visibly affected by the increased attraction than the more solid parts of the earth. Hence the waters on that side of the earth which is nearest to the Moon, will be attracted towards it with a greater power than that which acts on the water that is more remote from it; and the waters will rise, so as to make what is called *flood-tide*. But this elevation of the waters on the one side could only arise from the accession of waters from the other; and hence there will be a corresponding depression, called the *ebb-tide*. But when the sun is in conjunction with the moon, the attractive influence of both is combined, and hence a higher tide, called the *spring-tide*: when the sun is in opposition to the moon, it will tend, in proportion to its comparative attracting power, to depress the waters where the moon raises them, and hence a lower tide, called *neap-tide*.

Now, the periodic recurrence of the Tides, arising as it does from the established laws of the Solar System, is one of the most beneficent provisions in nature. Not only is it subservient, in many respects, to the art of Navigation, and to all the important ends to which that art has been applied, but it is one of the great ordinances by which provision is made for preserving an average equilibrium of temperature,—a constant circulation of air in the atmosphere,—and an incessant activity in the waters of the ocean itself. Let the Tides cease to ebb or flow,—let them be interrupted or suspended for a single year,—or let them become either much higher, or much lower, than they now are; and no human mind can calculate the number or amount of the evils which must necessarily result from such a change. And yet how simple in its nature, and how constant and invariable in its operation, is the law which determines and regulates this familiar phenomenon!*

In the sublime language of Scripture,—“He gathereth the waters of the sea together as an heap: He layeth up the depth in storehouses.”—“He hath compassed the waters with bounds.”—“Who shut up the sea with doors, when it brake forth, as if it had issued out of the womb? When I made the cloud the garment thereof, and thick darkness a swaddling-band for it; and brake up for it my decreed place, and set bars and doors, and said, Hitherto shalt thou come, but no further, and here shall thy proud waves be stayed?”—“Will ye not tremble at my presence, which have placed *the sand* for the bound of the sea, by a perpetual decree, that it cannot pass it; and though the waves thereof toss themselves,

* PROFESSOR VINCE, “Confutation of Atheism,” p. 23.
DR M'CULLOCH, “Proofs and Illustrations,” II. 270.

yet can they not prevail; though they roar, yet can they not pass over it.”*

6. Another example, belonging to the same class, may be found in the relation which subsists between *the uniform order observable on the earth*, and *the stable laws which regulate the movements of the heavens*.

As a part of the planetary system, the terrestrial economy is bound up with the celestial, and entirely dependent on it, instrumentally, for its stability and permanence. Let any one of the great laws which regulate the relations and movements of the Solar System be interrupted or suspended, and immediately the earth, thrown out of its orbit, and either accelerated or retarded in its motion, would fall into disorder and ruin. A very simple explanation of the common principles of astronomy will suffice to make this truth apparent to the plainest capacity. The system to which the earth belongs comprehends the Sun, the Planets, their Satellites or Moons, and the Comets. The Sun occupies a position which is correctly described as the *centre* of the system, since all the other bodies revolve round it at greater or less distances, but which is not to be conceived of as if it were the centre of a circle, since, in point of fact, it is one of the *foci* of an ellipse. The earth, and all the other planets, move in elliptic curves, of greater or less eccentricity, round the Sun, in certain periodic times. For this end they are subject to the action of two different, and, in a certain sense, antagonist forces; the one *centripetal*, which makes them tend towards the central sun,—the other *centrifugal*, which propels them away from it: and these forces are so nicely adjusted that, by their combined action, the planets are kept in their prescribed orbits,

* Psalm xxxiii. 7. Job xxvi. 10; xxxviii. Jeremiah v. 22.

Also Psalm civ. 5.

and move steadily, with a *regulated* but *unequal* velocity, through every part of their respective courses. They are liable, however, to a certain amount of *disturbance*, arising from the mutual attraction which subsists between all the bodies of the Solar System, and which varies in point of intensity according to their relative positions at different periods; and it was once thought that, in process of time, this disturbance might become so great as seriously to affect the stability of the system: but it has since been shown, by La Place and others, that the disturbing causes are counteracted by other provisions contained in the system itself, and that the possible aberration is so limited and bounded as to be perfectly compatible with the permanent order of nature. The fears which were formerly entertained of the possible collision of the Planets in their courses have been entirely dissipated by the discoveries of modern Science: and if we seem to be less secure against the sudden and unexpected irruption of the Comets, we may warrantably assume that this arises from our comparative ignorance of these apparently erratic bodies, and that were we as well acquainted with the laws which regulate their more eccentric orbits, as we are with those of the Planets and their Satellites, we should find, as the analogy of the latter teaches us to expect, some effectual provision for maintaining the stability and order of the system, throughout the whole term of *its appointed duration*.*

The sacred writers frequently refer to the *order of the heavens*, in its relation to the *order of the earth*, as illustrative of the wisdom and power of God. “When I consider thy heavens, the work of thy fingers, the sun and the moon, which thou hast ordained; what is man, that thou art mindful of him?” “For ever, O Lord!

* PROFESSOR VINCE, “Confutation of Atheism,” p. 70.

thy word is *settled in heaven*: thy faithfulness is unto all generations; thou hast *established the earth*, and it abideth: they continue this day *according to thine ordinances*, for all are thy servants.”—“Lift up your eyes on high, and behold who hath created these things, that bringeth out their host by number; He calleth them all by names by the greatness of His might, for that He is strong in power; not one faileth.”*

7. Another example, belonging to the same class, may be found in the *Atmosphere by which the earth is encircled, considered in its twofold relation to the Solar system, on the one hand, and the Terrestrial economy, on the other.*

The Atmosphere is a thin, transparent, and elastic fluid, which surrounds the earth to the height of several miles, and which becomes rarer in density in proportion as it is more remote. It is a familiar, and yet a very wonderful and mysterious agent; for our Lord himself selects it as a natural mystery, when he says, “The wind bloweth where it listeth, and thou canst not tell whence it cometh, nor whither it goeth.” As a *chemical compound*, it is both the subject and the cause of chemical action; and as a *mechanical force*, it is one of the most powerful agents in nature. In the *first* of these characters, it consists chiefly of oxygen and nitrogen in certain definite proportions; and it is capable of being decomposed by many mineral, vegetable, and animal substances,—while it exerts a powerful influence on the surface of various metals,—on the exposed rocks of the earth’s surface,—on the growth and decay of vegetables, and on the nutrition, the putrefaction, and dissolution of animal bodies. In the *second* character, again, it is, even in a state of equilibrium or rest, an inert but powerful instrument of pressure,—its weight being equal to fifteen

* Psalm viii. 8; cxix. 89. . Isaiah xl. 26.

pounds on a square inch of surface, and its total pressure on the earth amounting to 5,000,000,000,000,000 of tons. This powerful agent, applicable as it is both to chemical and mechanical purposes, is subservient to a great variety of useful and important ends in the existing economy of nature. It is essential to the support of life both in plants and animals; and supplies what is necessary for nutrition in the one, and for respiration in the other. It is essential to the support of combustion, and contributes to the production of those indispensable auxiliaries of life,—artificial light and heat. It is one of the most powerful agents employed in the great and incessant process of evaporation. It is one of the causes of the putrefaction and decay of dead substances, whether vegetable or animal, to whose nutrition and growth, while living, it had largely contributed. It is the medium through which the solar, lunar, and stellar light is conveyed to us,—such a medium as serves to increase that light by reflection, and to prolong its usefulness by refraction, as in the morning and evening twilight. As an elastic fluid, it supports the weight of birds in their flight, and offers a delicate resisting medium by which they are enabled to move onwards. In a state, not of equilibrium or rest, but of *motion* determined by varieties of temperature and other causes, it is a mechanical power, which, if unbridled, might occasion extensive desolation and ruin;—witness the tempests and tornadoes of tropical climes: but which, under ordinary limitations, admits of being applied for the use of man, as in rigged vessels at sea or wind-mills on land, or pneumatic engines which, with suitable machinery, might be equally applicable in both. As an elastic fluid, it is also the medium of sound, and stands connected with all the uses of speech, and all the delights of music. It enters more or less into most

of the chemical processes of nature ; and either promotes or prevents the success of every chemical experiment. It is preserved in a state fit for the use of living tribes, by parting with a portion of its oxygen in some cases, and of its nitrogen in others, and having both restored in suitable proportions by a marvellous adjustment between the vegetable and animal kingdoms.

The Atmosphere thus stands related to the Solar system, on the one hand, as the medium through which Light and Heat are conveyed to our planet from their central source ; and it stands related, on the other hand, to the whole Terrestrial economy, as an indispensable condition of the very existence of vegetable and animal life. It affords, therefore, a fine illustration of the adaptations which exist between the Terrestrial and the Celestial systems ; while the manifold practical uses to which it is applied, and the important ends which are manifestly subserved by it, furnish abundant evidence of skilful contrivance and intelligent design.

The uniformity, too, with which its constitution is preserved unimpaired, and in a state fit for the nutrition of plants, and the respiration of animals, in the midst of so many disturbing causes, which might serve to corrupt or deteriorate it ;—the provision which has been made for preserving its equilibrium, through that elastic property which is an effectual counterpoise to its weight, and through the law which regulates its circulation and distribution according to the variations of temperature ;—the constant repair or renewal of the atmosphere by fresh supplies of its constituent elements, furnished from the very sources where it might seem to have been consumed, as when plants decompose water, and give oxygen to the air, or as when animals absorb oxygen in respiration, and emit carbonic acid ;—all these, and many more facts of

a similar kind, impart additional strength to the evidence of *Design* in Nature.

The sacred writers frequently speak of the Atmosphere as affording, in its various phenomena, an instructive illustration of the majesty, wisdom, and power of God. "He maketh the clouds His chariot; He walketh upon the wings of the wind." "He bringeth the wind out of His hid treasures." "He scattereth His bright cloud, and it is turned round about by His counsels, that they may do whatsoever He commandeth them upon the face of the world in the earth. He causeth it to come, whether for correction, or for His land, or for mercy. Dost thou know the balancing of the clouds, the wondrous works of Him which is perfect in knowledge? how thy garments are warm, when he quieteth the earth by the south wind?"*

8. Another example,—akin to the former, and in one view comprehended under it, but worthy by reason of its special significance of being distinctly considered,—may be found in the marvellous provision which has been made for refreshing the earth and its plants, in the absence of rain, by the spontaneous appearance of *moisture in the form of dew* on substances exposed in the open air.

The philosophical explanation of this phenomenon is one of the most beautiful instances of Induction which the annals of Science contain. It was first developed in an interesting essay by Dr Wells.† The familiar fact that certain substances, exposed in the open air, contract moisture, even when there is no visible rain or fog to account for it, was first of all brought into com-

* Psalm civ. 3. Job xxxvii. 11.

† DR WELLS on Dew.

SIR JOHN HERSCHELL, "Discourse," p. 159.

J. S. MILL, "Logic," gives an analysis of the argument.

parison with certain other analogous facts which might possibly fall under the same general law,—such as the appearance of moisture on a glass vessel containing iced or very cold water in a hot day, and on the inside of windows in a warm room when the external air is suddenly chilled. These analogous cases seemed to point to the coldness of the body on which the moisture is formed, compared with the higher temperature of the atmosphere, as one of the causes or conditions of its production. This indication is verified in the case of Dew by the fact, ascertained by the Thermometer, that the substance which contracts moisture on exposure to the air at night, is invariably colder than the air in which it is placed. May not the dew, however, be the *cause* of this greater coldness, rather than the *effect* of it? Unquestionably it might be so; and were there no further evidence, it might be difficult to answer the question. But there is further evidence, and that of the most satisfactory kind. Some substances contract *no* dew, others contract *a little*, and others a *great deal*, when they are all equally exposed, at the same time, and in the same circumstances,—and not only so, but the quantity of dew that is deposited depends on the state of the surface of each body, whether rough or polished, plain, painted, or varnished, as well as on its peculiar nature and internal texture. It has been found that those *substances* contract most dew which are the worst *conductors* of heat,—and that those *surfaces* contract most dew which are the worst *radiators* of heat: a fact which clearly shows that the deposition of dew depends on the loss of heat in the case of those bodies on which it is formed. But even this is not all. A cloudy sky, or an intervening shade, which serves to impede the transmission of heat, or to restore it again by radiation, will effectually prevent the formation of dew; while the

scattering of the cloud, or the removal of the shade, leaving a clear opening above for the transmission of Heat without any intervening body to intercept or return it, will be speedily followed by the formation of moisture on those substances and surfaces which most easily part with their heat. Dew is formed because the body has become colder than the air, and causes a condensation of its moisture.

Such is the philosophical explanation of a very familiar experience. That explanation proves that this phenomenon, like every other, is regulated by wise and stable laws,—that it occurs only on certain conditions,—and that it depends on a natural cause. And, thus considered, it affords a beautiful example of the skill with which *various laws*,—the laws of heat, of the atmosphere, and of watery condensation,—have been adjusted and combined for a wise and beneficent *end*. But, apart from the philosophical explanation altogether, there is enough in the manifold uses of Dew, as a natural agent, to convince even the least instructed mind, that it must have been provided by wise and intelligent design. It refreshes the earth, when it is parched, and when copious rain might be unseasonable or injurious. It is, in fact, a subsidiary arrangement, or, so to speak, a *supplement*, to that more general provision, formerly noticed, for watering the earth: and, accordingly, the sacred writers often class the two together, while they ascribe both to the wisdom and goodness of God. “Hath the *rain* a father? or who hath begotten the drops of *dew*?” “My root was spread out by the *waters*, and the *dew* lay all night upon my branch; my glory was fresh in me, and my bow was renewed in my hand.” “The king’s favour is as *dew* upon the grass.” Nay, adopting this natural symbol, and applying it to Himself, God says, “I will be as the

dew unto Israel : he shall grow as the lily, and cast forth his roots as Lebanon ; his branches shall spread, and his beauty shall be as the olive-tree, and his smell as Lebanon.”*

9. Another subsidiary arrangement, obviously designed and fitted, like the production of dew, to supply what was not secured by the more general laws of Nature, may be found in the special provision which has been made for *imparting light and heat to certain animals in circumstances in which they would otherwise have been destitute of both.*

The general laws which regulate the distribution of light and heat from their central source, could not equally suffice in all conceivable circumstances for the wants of living beings ; they are adapted primarily to the atmosphere, and are not so suitable to the constitution of the ocean ; and even on the surface of the earth itself, there are regions in which, without some subsidiary arrangement, there would be a deficiency both of light and heat. And hence for both a supplemental provision is made. The depths of the ocean, which could not be penetrated by the solar, lunar, or stellar light, and which *otherwise* might have been left in absolute and eternal darkness, are lighted up, so far as the necessities of their inhabitants require, by that mysterious and hitherto inexplicable *Phosphorescence*, which, whether it be subject or not to the will of the fishes, whose luminous traces are often distinctly visible, and as often suddenly extinguished, must exert an important influence on the mysterious economy of the sub-marine creation.† And as Light, not equable and permanent, but occasional and seasonable, is thus provided for the denizens of a medium

* Job xxxviii. 28 ; xxix. 19. Prov. xix. 12. Hosea xiv. 5.

† Dr M'CULLOCH, "Proofs and Illustrations," c. 27 ; "On the Light of the Marine Animals," II. 80.

through unfathomed depths, which the solar rays cannot penetrate, so a similar provision is made for Heat, where heat is required under the cold waters of the ocean. It was impossible that warm-blooded animals, such as breathe atmospheric air, could retain their heat, or continue to live, in the regions of the great deep, unless some special provision were made for preserving their temperature from being impaired by the incessant action of a medium so vast and so incapable of being warmed as the sea. It is a remarkable fact, accordingly, that many of the inhabitants of the deep are *cold-blooded*, while the powers of life and sensibility are not diminished: the necessity of a higher temperature is thus superseded, and these fishes occupy an element which, although colder than our atmosphere in its average state, is perfectly adapted to their structure and wants. It is equally remarkable that where *warm-blooded* fishes were to inhabit the deep, provision is made for their retaining heat even in a colder medium; as in the case of the *Cetaceous* fishes, which are all of large size, and protected by a thick covering of fat, which, as a powerful non-conductor, preserves the heat of the vital organs. A similar provision, it will be remembered, is made for the thicker clothing of land animals in the colder regions of the earth: and in both instances we discern the wisdom of Him whose resources are infinite, and who is not limited to any one expedient for the accomplishment of His great designs.

10. Another example, belonging to the same class, may be found in the marvellous adaptation which subsists between *the constitution of the different vegetable and animal races, and the varieties of climate on the earth's surface.*

We have already seen that, from the arrangements of

the Solar system, there must necessarily be an unequal distribution of Heat from the central orb over the various regions of the earth; and that a *variety of climate* forms an essential part of the scheme of nature, since, owing partly to the spherical form of the earth, partly to the inclination of its axis to the plane of its orbit, and partly to its revolution in this inclined position round the sun, some parts of its surface must be nearer than others to the source of heat, and enjoy in larger measure, or for a longer time, the benefit of its beams. Hence the common division of the earth's surface into Zones, temperate, torrid, and frigid. It follows that, if the vegetable and animal races were to live and thrive in climates so widely different, either they must be differently constituted from the beginning, so as to be naturally adapted to the regions in which they subsist,—or they must have a power of self-adaptation, within certain limits, to different temperatures, so as to become acclimated and naturalised on their undergoing a change of place. It is very remarkable that each of these provisions exists, and is in actual operation in Nature. Vegetable and animal races, differently constituted from the beginning, have been supplied for every variety of climate; and hence life, growth, and reproduction, are equally going on at Cairo with a mean temperature of 72° , at Rome with a mean temperature of 60° , at London with a mean temperature of 50° , and at Petersburg with a mean temperature of 30° . Both the plants and animals which live under these various climates are, to a large extent, differently constituted,—as if they had been constructed *on purpose* to people different regions. Near the equator, we find the clove and nutmeg, pepper and cinnamon, the coffee-tree and the tamarind, which could not exist in those northern regions where their place is supplied by the hardier fir-

trees, the alder, sycamore, and mountain ash. A similar difference obtains between the animals belonging to different climates. But there exists also both in plants and animals a capacity of adapting themselves, within certain limits, to a change of climate, so as even, in some cases, to become naturalised where they were not indigenous. In the case of Man, especially, there exists a power of discovering his wants, and the means, also, of supplying them; and by the various expedients of cultivation, clothing, and artificial light and heat, he is enabled to live, and even to enjoy life, in every variety of climate. "Thus, in one part of the world, the human body sustains heat higher than that at which ether boils,—90 Fahr^t.,—and in another is exposed to a cold which occasions the congelation of mercury,—40° below zero."*

Surely these various adjustments between degrees of temperature, depending on the arrangements of the Solar system, and differences of constitution both in the vegetable and animal races, afford a manifest exhibition of intelligent design; and we may well conclude that the whole scheme of Nature, including both the Celestial and the Terrestrial economies, was devised by *one omniscient Mind*.

§ 2. The *second* class consists of examples exhibiting the adaptations which subsist between *the different parts of the same organised structures*.

Every Organism consists of several distinct parts, and these parts are so related to each other as to exhibit evidence of skilful adjustment and intelligent design. Nay, the same organism often contains within it several dis-

* DR HALL, "Analytical Synopsis" prefixed to DR PICKERING'S "Races of Men," p. ix.

tinct organs, each of which exhibits a structure adapted to the uses which it is designed to serve: and hence a *multiple* evidence arising from the structure of each part, and from the relation between the several parts in the complex whole.

1. Our *first* example, under this class, is *the structure of the human body*, considered generally, with reference to *the arrangement of its constituent parts*, and *the manifold uses which they evidently subserve*.

The Human Body is a microcosm,—a world in miniature; and the Atheist himself, who denies or doubts the existence of God, carries about with him a living witness in his own person of the great truth which he calls in question. Let him study the frame of his own body, and it will testify to the wisdom, power, and goodness of its Maker.

The human body exhibits, in its general structure, an assemblage of various organs,—collected within a very narrow compass,—all mutually related to each other,—and all harmoniously co-operating for the good of the whole, while each subserves its own distinct and specific end. Let any one of these organs be deficient or diseased, and the organism becomes comparatively imperfect; let some of them be destroyed, and it instantly ceases to fulfil any of its functions. We are so familiar with some facts that they cease to make a due impression upon us, until, by an effort of reflective thought, we make them the subject of distinct and attentive consideration. Let us consider, then, in the first place, *the multiplicity of ends* which are actually subserved by the structure, and which appear to have been contemplated in the formation, of the human body. That organism was to serve as the medium of communication with, and of command over, the external world; it was to *see*, to *hear*, to *taste*,

to *touch*, to *smell*, or rather to be the channel through which all these various sensations should be conveyed to the sentient principle within ;—it was to *breathe*, inhaling and respiring the atmospheric air on which its continued existence was left to depend ;—it was to *grow*, to be *sustained* and *repaired* by suitable aliment, and hence it was to *eat*, to *digest*, and to *assimilate* ;—it was to *stand erect*, to *kneel*, to *walk*, to *run*, and to be capable alike of *motion* and *rest* ;—it was to *wake* and to *sleep* ;—to be sensible of *pleasure* and of *pain* ;—to be *reproductive* of its kind ;—and to be an instrument of *active voluntary power*, as well as a passive recipient, or mere channel, of *impressions*. All these *ends*, and many more, are actually subserved by the human organism, and, being distinct and diverse in their own nature, their accomplishment affords a multiple evidence of intelligent *design*. But that evidence is still farther enhanced when we consider, *secondly*, the *multiplicity of organs* which are rendered subservient to these ends,—the organs of vision, of hearing, of taste, and smell, and touch,—of respiration, of circulation, of mastication, of deglutition, of digestion, of secretion, of assimilation, of absorption, of excretion, of locomotion, of reproduction,—which are all capable of acting simultaneously, and many of them incessantly, in our daily experience. And the evidence becomes overwhelming, when we consider, *thirdly*, that all these organs, subserving so many different ends, are assembled together within a body of moderate dimensions, and so situated or arranged with relation to each other, that the system works harmoniously during a long term of years. What Dr Paley calls the *package* of the animal mass is, indeed, a surprising proof of the wisdom with which the body has been framed, since it shows that the utmost care has been taken so to place and arrange its various organs as at

once to provide for their protection individually, and also for their joint action and harmonious co-operation. Anatomical details, however instructive and interesting as illustrations, are not necessary as proofs, of the wisdom with which an organism has been constructed that is capable of subserving so many distinct ends; every man who has an observant eye and a reflecting mind can appreciate the evidence to which we appeal: and that evidence is all the more impressive by reason of the compactness, symmetry, and beauty of the human form.*

The evidence of *design* becomes irresistibly strong, when we consider *the number of adjustments* that were requisite in order to adapt each part of the body to the uses which they were intended to serve. Galen computes that there are in the human body more than six hundred different muscles: and that in *each* of these there must have been at least *ten* special adjustments; their *figure* must be determined, their *magnitude*, their *strength*, their *position*, and their connection with the bones, nerves, arteries, and veins. It follows that there are at least six thousand instances of design in the muscles alone. The same writer computes the bones in the human body to be two hundred and eighty-four; and reckons up no fewer than fifty distinct intentions in each of these; so that there are *one hundred thousand* instances of design in the bones of the human skeleton! †

The sacred writers refer to the structure of the human body, and the relation subsisting between its particular parts, as illustrative of the power, wisdom, and goodness of God. “Thou hast possessed my reins; thou hast

* DR PALEY, “Natural Theology,” with Illustrative Notes by Lord Brougham and Sir C. Bell. Vol. II. 152.

† DR RAY, “Wisdom of God in Creation,” p. 277.

covered me in my mother's womb. I will praise thee, for I am fearfully and wonderfully made; marvellous are thy works, and that my soul knoweth right well. My substance was not hid from thee, when I was made in secret, and curiously wrought in the lowest parts of the earth. Thine eyes did see my substance, yet being imperfect; and in thy book all my members were written, which in continuance were fashioned, when as yet there was none of them." "Thine hands have made me and fashioned me round about." . . . "Thou hast made me as the clay; hast thou not poured me out as milk, and curdled me like cheese? Thou hast clothed me with skin and flesh, and hast fenced me with bones and sinews." "The body is not one member, but many. . . . If the whole body were an eye, where were the hearing? If the whole were hearing, where were the smelling? But now hath God set the members every one of them in the body, as it has pleased Him."*

2. Another example under this class is derived from the marvellous combination and adjustment of *Mechanical, Chemical, and Vital Powers in the same corporeal system*.

It is not a system depending only on one class of Laws; it depends on several, and these are so combined as to produce the desired results. There is room, within the ample range of Natural Theology, for the doctrine of "Animal Mechanics;" but the corporeal phenomena cannot be explained on *mechanical principles alone*; there is room also for the doctrine of "Animal Chemistry."—Nay, the corporeal phenomena cannot be accounted for by *chemical*, any more than by *mechanical, principles alone*: in addition to both there is another class of powers; there is the mysterious principle of *Life*, which modifies or

* Psalm cxxxix. 13. Job x. 9. 1 Cor. xii. 25.

suspends, in a living organism, the ordinary action of chemical agents: and there is the equally mysterious principle of *Volition*, which controls all the mechanical agents that are subject to its sway, and uses them merely as instruments for the accomplishment of its purposes.* Such an amazing combination of powers so diverse, and such a skilful adjustment of them, although mutually independent, as makes them contribute each its own quota to the general result, bespeaks a wisdom which man may apprehend and adore, but which he cannot hope to emulate in any of his own imperfect works. And what renders the proof of Divine wisdom the more impressive is the care with which those parts of the system on which its continued existence mainly depends are provided for by purely mechanical, chemical, or vital laws, independent alike of man's knowledge and will,—such as the process of respiration,—the circulation of the blood,—and the secretion of many necessary humours; while certain other processes, such as the use of the hand, of the teeth, and of the limbs, are left to be regulated by man himself as an intelligent, voluntary, and active agent. “For the continuance of life,” says Sir Charles Bell, “a thousand provisions are made. If the vital actions of a man's frame were directed by his will, they are necessarily so minute and complicated that they would immediately fall into confusion. He cannot draw a breath without the exercise of sensibilities as well ordered as those of the eye or ear. A tracery of nervous cords unites many organs in sympathy; and if any one filament of these were broken, pain and spasm and suffocation would ensue. The action of his heart, and the circulation of his blood, and all the vital functions,

* SIR CHAS. BELL, “Animal Mechanics.”

DR LIEBIG, “Organic Chemistry.”

DR BARCLAY, “Life and Organization.”

are governed through means and by laws which are *not dependent on his will*, and to which the powers of his mind are altogether inadequate. For had they been under the influence of his will, a doubt, a moment's pause of irresolution, a forgetfulness of a single action at its appointed time, would have terminated his existence."

A very simple, but very beautiful example of the combined action of Mechanical, Chemical, and Vital powers in the same subject, may be found in a common *egg*, considered as containing the germ of a living fowl. An egg contains within the shell *three* constituent parts,—the chick, or germ of future life,—the yolk which is destined for its nourishment,—and the white surrounding it. The yolk is lighter than the white, and is attached to it at two points by tough strings, called *treadles*; but these points are below the centre of gravity of the yolk, and, therefore, in whatever direction the egg may be turned, the yolk is uppermost, and the chick is always nearest to the breast of the hen. In this simple case, we have a combination of no fewer than *four* distinct classes of natural powers: *first*, the Mechanical power, regulating the internal motion of the yolk, and determining the position of the chick,—*secondly*, the Chemical power, adjusting the temperature to the process of incubation; and acting on the contents of the egg so as to convert them into fit nourishment for the embryo life; *thirdly*, the Vital power, residing in the chick, and merely developed by the regulated supply of heat from the mother's breast, for, without the vital germ, the egg would only be addled by hatching; and, *fourthly*, the Instinctive power, or the propensity, which exists in the hen, at certain seasons, to deprive itself for weeks together of its usual freedom and recreation, and almost even of necessary food, while it sits alone, waiting for the produc-

tion of living creatures from the white globes which are covered by her wings!

3. The next example under this class is derived from *the structure of the Eye*, viewed in its relation to *the laws of light*, and to *the practical uses* that are served by it.

Every part of the living Organism is itself an organ, whose structure exhibits undeniable proofs of adjustment and design. The Eye is a "prerogative instance." Vision depends on Light, which proceeds from objects at various distances in pencils or rays, and enters the eye through an aperture which is called the pupil. The transmission of light is regulated according to certain laws which are uniform and invariable. These *laws of light* have been accurately investigated and ascertained. From the earliest period common observation had discovered that it is reflected from some surfaces, and refracted in certain media; but Sir Isaac Newton was the first to give a philosophical explanation of the phenomena. He ascertained the different refrangibility of light in different media, and its capacity of being separated into the primary colours by making it to pass through a prism. The Eye is an organ adapted to light, and, considered as a mere instrument, its suitability to the purposes of vision would be apparent, even were we unable to give a philosophical explanation of it. But when it is examined in the light of modern science, it is found to be an exquisitely constructed philosophical instrument, more perfect than the telescope or the microscope.* Entering at the aperture or pupil, the light passes through a series of humours, and is made by their refracting power to converge to a focus on the retina, a membrane spread out at the bottom of the eye,

* DR PALEY, "Natural Theology," Illustrated by Lord Brougham and Sir C. Bell, IV. 95.

on which a distinct image of the object is formed. At this point our knowledge of the *mode of vision* terminates; the Mechanical gives place to the Vital and the Mental powers. How the Mind discerns that image, or what connection subsists between its formation on the retina and our perception of external objects, we cannot tell; but down to this point all is clear and certain; and what we *do* know is sufficient for our purpose. The Eye may be compared to a Telescope or *Camera Obscura*, in each of which an image is formed, and by similar means. And considering the laws which regulate the transmission of light, on the one hand, and the structure of the Eye, on the other, we can hardly fail to be struck with the skilful adjustment between the two, or to acknowledge that if the construction of a telescope bespeaks the skill of a philosophic artist, the construction of the eye indicates the profound wisdom of its Maker. In the words of Sir Isaac Newton,—“Whence is it that the eyes of all sorts of living creatures are transparent to the very bottom, and the only transparent members in the body, having on the outside a hard transparent skin, and within transparent humours, with a crystalline lens in the middle, and a pupil before the lens, all of them so finely shaped and fitted for vision that no artist can mend them? Did blind chance know that there was light, and what was its refraction, and fit the eyes of all creatures, after the most curious manner, to make use of it? These, and such like considerations, always have and ever will prevail with mankind to believe that there is a Being who made all things, and has all things in his care, and is therefore to be feared.”

But the structure of this organ is not only adapted to the general laws of Light; it is adapted also, by various *subsidiary provisions*, to the special circumstances in which

it may be placed. These circumstances are very different at different times. The eye may be called into exercise in very *different degrees of light*. Sometimes the light may be clear and strong, at other times it may be dim and weak: but a provision is made in the very structure of the organ whereby it can *adjust itself* to this diversity. When the light is too strong, the aperture or pupil admits of being contracted; when it is too weak, the same pupil admits of being dilated,—still preserving, however, its circular form, so as to admit in the one case a smaller, and in the other a larger, number of rays; and this is accomplished by means of fibres so situated as to preserve a perfect circle, while its diameter is either shortened or lengthened.

Objects may be placed, again, at very *different distances* from the eye; and hence the rays of light, proceeding in straight lines, could hardly form an exact or full image of the object on the retina, unless the eye were so formed as to adjust itself also to this difference. But the eye *is* so formed. Distant objects send rays of light almost in parallel lines to the eye; from nearer objects these rays are more divergent; and therefore in looking at the latter, the eye itself changes its shape: it becomes slightly more prominent,—the light passes through a somewhat longer medium inside the eye, and thus forms a correct and distinct image at the bottom of it,—a provision which reminds us of the Philosopher's expedient when he *rectifies* his telescope, and adjusts his glasses to suit the occasion on which they are used.

Still further, the eye, while it is a most useful, is also from its structure a very tender and delicate organ; and were it exposed unprotected to the war of the elements, or even placed continually under the direct influence of those very beams in which it delights, it could not escape

frequent injury, or swift destruction. But this is also provided for. Seven different bones meet to form the socket in which it is lodged; it is protected by the eye-brows, and still more by the eye-lid and eye-lashes, which constantly opening and shutting during the day, at once defend the tender organ and wipe it, and during the night close over it, and shut it up.

But the eye could not be preserved by these exterior defences, or fitted to turn easily and quickly in all directions, were it left without *a constant supply of moisture*. This also is provided. A natural wash for the eye exists; and that wash, secreted and applied day by day continually, is carried off by a canal cut through the solid bone! No *such* provision is made for the inhabitants of the deep, just because the element in which they live supplies its place, and renders it superfluous.

4. Another example of a special organ, exhibiting manifest tokens of *design*, may be found in the *structure of the human Hand*. This wonderful instrument attracted at a very early period the attention of scientific inquirers, and was justly regarded as a distinctive peculiarity, which contributed largely to the pre-eminence of our species. It was specially illustrated by Galen, and it has been more recently explained, with the aid of modern science, by Sir Charles Bell and Dr Kidd.*

The hand may be considered in a threefold aspect: *first*, as a mechanical instrument, subject to the power of the will, and fitted to give man dominion over all other creatures in this lower world; *secondly*, as a living organ, possessing the property of touch, and thereby

* GALEN, "*De usu Partium.*"

SIR C. BELL, "The Hand; its Mechanism and Vital Endowments, as evincing Design."

DR KIDD, "Bridgewater Treatise," pp. 11, 19, 28.

ministering to the information of the mind; and *thirdly*, in the light of comparative Anatomy, as adapted to a greater number of ends, and these of a higher kind, than those which are served by any analogous part of the structure of inferior animals.

That it is a *mechanical instrument*, subject to the will, and designed for the use of man, is a fact too self-evident in the light of our most familiar experience, to admit either of doubt or of proof. But it may be illustrated, so as to make a deeper impression on the reflective mind, by a brief description of its constituent parts, and a rapid enumeration of its important uses, considered only, in the first instance, as an engine through which man acquires and exerts his ascendancy over material nature and the subordinate races of animals. Without referring to the *shoulder* or the *fore-arm*, with which, however, the Hand is intimately connected, consider separately the *wrist*, the *palm*, the *thumb and fingers*, the *nails*, the *bones*, the *muscles and tendons*, the *nerves and veins*, and the *skin* or *cuticle*, which are all combined in this small but most marvellous organ,—all equally indispensable to its full efficiency; and, if it be possible in *any* case to infer design from the orderly adjustment of parts, or the manifest adaptation of means to end, you will be constrained to acknowledge that the Hand, in the number and variety of its arrangements, affords a *multiple* evidence of overpowering force. Nor is this kind of evidence beyond the reach or above the comprehension of any reflecting man. It may be illustrated by Scientific Anatomy, but it is not so dependent upon it as to be an exclusive monopoly of the learned. Any one, however ignorant of the nature and even of the technical names of some of its constituent parts, may know enough of its complicated structure and manifold uses as a Mechanical instrument,

to be convinced, on good and sufficient grounds, that it could have been framed only by a most wise and intelligent Maker. And should his knowledge be subsequently enlarged by some acquaintance with the results of anatomical dissection, he will find that Science serves only to confirm his previous conviction, and to illustrate the evidence on which it was founded. In the elastic texture of the palm,—in the form and different lengths of the fingers,—in the size, strength, and relative position of the thumb,—in the regular series of the joints,—in the provision for the growth and reparation of the nails,—he will see so many distinct arrangements for imparting facility and variety of motion, such as can never be successfully imitated by any artificial combination of mere mechanical powers.

But the Hand is not a mere Mechanical instrument ; it is a Living Organ, endowed with sensibility, and furnished with nerves through which it receives and transmits to the mind that information which depends on the sense of Touch. Here again we have a beautiful example of the combined action, formerly noticed, of the Vital, Chemical, and Mechanical powers. The irritability which belongs to the muscles, or the power by which they are alternately relaxed or contracted as the occasion requires, depends on the Vital principle, and is incapable of being supplied by any combination of mere mechanical forces ; while the blood and even the bones are chemically produced and chemically repaired. It has been well said, that “the human Hand is so beautifully formed,—it has so fine a sensibility,—that sensibility governs its motions so correctly,—every effort of the will is answered so instantly, as if the hand itself were the seat of that will,—its actions are so powerful, so free, and yet so delicate, as if it possessed a quality of instinct in itself,—that there

is no thought of its complexity as an instrument, or of the relations which make it subservient to the mind: we use it as we draw our breath, unconsciously, and have lost all recollection of the feeble and ill-directed efforts of its first exercise by which it has been perfected. Is it not *the very perfection* of the instrument which makes us insensible of its use?" *

The illustrious Galen had long ago remarked that "Man, being naturally destitute of corporeal weapons, as also of any instinctive art, has received a compensation, *first*, in the gift of that peculiar instrument the Hand,—*secondly*, in the gift of Reason; by the employment of which two gifts he arms and protects his body in every mode, and adorns his mind with the knowledge of every art. . . . To man, the only animal that partakes of Divine intelligence, the Creator has given, in lieu of every other natural weapon or organ of defence, that instrument—the Hand; an instrument applicable to every art and occasion, as well of peace as of war. . . . With this weapon he weaves the garment that protects him from the summer's heat or winter's cold; with this he forms the various furniture of nets and snares, which give him dominion over the inhabitants as well of the water as of the air and earth; with his Hand he constructs the lyre and lute, and the numerous instruments employed in the several arts of life; with the Hand he erects altars and shrines to the immortal Gods; and lastly, by means of the same instrument, he bequeaths to posterity, in writing, the intellectual treasures of his own divine imagination; and hence we, who are living at this day, are enabled to hold converse with Plato and Aristotle, and all the venerable sages of Antiquity."

5. Another example, belonging to the same class of

* SIR C. BELL, "The Hand," p. 144, 16.

cases, may be found in *the Heart*, with *its associated system of Arteries and Veins*.

The fact of the circulation of the Blood, although comparatively a modern discovery, has already become an article of popular belief, and is one of the best attested and most generally accredited results of scientific inquiry. The *ends* that are served by it are manifest. It is essential to the preservation of life, and its cessation is the surest symptom of death. It serves to convey nourishment to every member of the body, in a measure nicely proportioned to its need. It is the means of purifying the blood itself, by exposing it to the action of the air in the lungs, and to the chemical influence which the air exerts over it. For these and similar ends, provision is made by means of a central engine or cistern, and a series of connected pipes. The central engine—the Heart—is an organ whose structure is admirably adapted to the uses for which it is designed. It may be described, in general terms, as a hollow, muscular, fibrous apparatus, having two distinct but closely connected sides, the one for the expulsion of blood from the centre, the other for the reception of it on its return from the extremities. Each side has two distinct cavities,—the one for receiving the blood, the other for sending it out; and these are so situated and so connected, that the blood which returns from every part of the body through the veins in a state unfit for the uses of the system, is conveyed through them so as to be exposed to the action of the air. During this process, the dark-coloured blood is chemically purified, losing part of its carbon, and acquiring oxygen. Through the veins of the lungs it returns to the other side of the heart,—whence it passes through a large artery to every part of the body.

Such is a very general account of the central engine

or cistern : but it must be viewed in connection with its associated system of arteries and veins, if we would form any correct estimate of the marvellous wisdom which it displays. As the blood was to be kept in *constant motion*, a permanent force was required ; and no organ can be more wonderful than that which at once supplies the force, and provides for its own reparation. The alternate contraction and relaxation of its fibres,—the *systole* by which it expels the blood into the arteries, just as water is expelled from a syringe, and the *diastole* by which the blood is re-admitted into the cavities of the heart, constitute one of the most striking proofs of intelligent design,—especially when it is remembered that the heart contracts about *four thousand times* every hour, and that the whole mass of blood passes through it about once in every four minutes,—that life is entirely dependent on the constancy of its action, which has, therefore, been most wisely withdrawn from the control of the human will,—and that it goes on regularly, from hour to hour, for fourscore years together !

The two systems of Blood-vessels,—the arteries and veins,—are admirably adapted to the central organ. The former, with their manifold subordinate ramifications, have been compared by Paley to “the water-pipes in a city, viz., large main trunks branching off by smaller pipes, and these again by still narrower tubes, in every direction, and towards every part in which the fluid they convey can be wanted.” But provision was to be made not merely for the distribution of the blood, but also for its being returned to the cistern ; and hence there is also an inverted series of tubes,—the veins,—which serve to conduct it back to the heart. When these two sets of tubes are carefully examined, they are found to correspond in some respects, and to differ in others ; and in

either instance, we may discern the reason of the resemblance or diversity. The arteries are found to be tougher and stronger than the veins; and the reason is obvious, for the blood in the arteries is continually passing from wider into narrower tubes, whereas that in the veins is passing from narrower into wider; and consequently the pressure on the sides of the vessels being unequal, the strength of their texture must be proportioned to it. Nor is this the only difference between the two. They differ also in their *situation or position*. The arteries, on whose safety life is so dependent, are carefully protected,—they are defended by sinuses or bones, and they pass along grooves constructed, as if on purpose, for their defence. But all these provisions would have been unavailing if the pipes, communicating with the heart, had not been furnished with valves; for, as the heart alternately contracts and expands, the blood, instead of being propelled, so as to keep up a uniform and constant circulation, might have regurgitated, unless provision had been made to facilitate its flow in one direction, and to prevent it in another. Such a provision has been made: there is a valve between each auricle and ventricle; there is a valve at the mouth of each artery; and these are so constructed as effectually to secure the proposed object. Anatomical research has recently been directed to the more minute and obscure ramifications of the Blood-vessels, and with the aid of diagrams exhibiting their appearances under the microscope, they admit of being explained, to a certain extent, even to a common audience; but our argument rests mainly on the broad general facts which are patent to the observation of all.

6. The *Mouth*, considered as including the *lips*, the *gums*, the *teeth*, the *tongue*, the *palate*, the *throat*, and the *tonsils*, exhibits, within a small compass, a system of ar-

rangements admirably adapted to various distinct and important *ends*. It is like a compact box, closely packed, containing a variety of instruments, so constructed and so situated as not to interfere with one another, but to co-operate harmoniously for as many different uses. One of its uses is the *preparation of food*. The mouth receives the food, and is furnished with instruments for cutting and grinding it; it is constantly supplied with moisture, secreted by vessels specially provided for that end: it is aided by the action of the tongue, and it transmits the aliment, thus moistened and prepared, through the throat to the stomach. It stands connected, therefore, with the great provision for the nourishment and support of the whole body; and having fulfilled its preliminary functions, it sends forward the aliment to other organs, that it may be digested and assimilated by them. The stomach, connected on the one side with the mouth and gullet, and on the other with the intestines, liver, and various organs of secretion, receives the food, which is there mixed with gastric juice, —a powerful solvent, secreted by appropriate vessels and acting on the contents of the stomach without acting in the same way on the coats of the stomach itself. Besides being subjected to this chemical agent, the food is subjected also to a mechanical power, for the contraction of the muscular coats of the stomach co-operates with the digestive menstruum in preparing it for the intestines. The aliment, converted into pulp, is mixed with bile, secreted by glands and conveyed by pipes;—it becomes a milky fluid, and supplies every part of the body with nourishment.—These are plain facts, familiar to all, and little dependent on scientific knowledge; but they are abundantly sufficient to show that a series of several distinct and independent organs have been so constructed

and so arranged as to concur in promoting the nourishment and repair of the whole corporeal system. But the preparation of food is not the only use to which the mouth, with its various parts, is made subservient:—it contains a provision also for respiration,—for taste,—for speech,—and for music. The mouth, the wind-pipe, the lungs, the nostrils, are all equally concerned, although in different ways, in the process of breathing; and they are so situated in relation to each other as to constitute one complex organ of respiration. The palate gives us the sense of taste, which is at once an inlet of knowledge, and a source of pleasure. The power of speech depends on the organs of respiration, and these organs, while they are independent of the will in all that concerns the preservation of life, are so far subject to the will that we can modulate the tones of our voice at pleasure, and can thus acquire, not only the power of articulate speech, but the arts of oratory and music. The manifest connection between so many distinct and independent organs, and their subserviency, equally manifest, to so many useful, but widely different ends, affords a multiple proof of intelligent design in the structure of our bodily frame.

§ 3. The *third* class consists of examples of Design, derived from the relation subsisting between *different substances, organic and inorganic*.

Every material substance stands related to other substances specifically different; and their respective properties exert, in many instances, a reciprocal influence. To ascertain *the law of these relations* is one of the great objects of Natural Science.

All material bodies have been divided into two classes,—the *organic* and the *inorganic*. The difference which gives rise to this distinction does not consist in the one

possessing, and the other wanting, a regular and symmetrical form,—still less in the one being subject to fixed laws, and the other exempt from them: for what can be more regular, or more mathematically correct, than the structure of crystals, or what laws more uniform than those which regulate their formation? But the difference lies in the one class of substances possessing certain organs and properties which do not belong to the other. From the lowest form of vegetable life up to the highest and most complicated animal structure, we find provision made for *growth* and *reproduction*, such as does not exist in lifeless matter.*

1. Our *first* example under this class may be taken from the relations subsisting between *different inorganic substances*.

It is from organised structures that we derive our clearest and strongest proofs of design; but from the relations which have been established even between unorganised substances we learn that the same wisdom must have presided over the formation of both. The affinities which subsist between certain substances,—the different strength of these affinities in different cases,—and the beautiful law of chemical combination in certain *definite proportions*, impart an order and a regularity to the processes of nature which render them a fit subject of exact Science; while it is mainly by a knowledge of these properties and laws that man is enabled to make use of nature for the purposes of Art. The argument which is founded upon them does not imply that these properties and laws, considered simply *per se*, might not have been different from what they are, without impairing the evidence of *design*; it depends not so much on the nature of the laws, as on the fact of their uniform operation, and the

* DR KIDD, "Bridgewater Treatise," p. 7.

many useful purposes which are thereby subserved. It is greatly strengthened, too, by the consideration that the manifold and stupendous processes of nature are all carried on by the reciprocal action of a *few* simple substances; how *few* they may be, it is impossible to tell; for rapid as has been the recent advance of Chemical Science, we are still far from the knowledge of the ultimate elements of bodies, and it is possible, or even perhaps probable, that of the fifty or fifty-five substances which are now considered as elementary, not a few may yet be reduced, by a more rigorous analysis, to a still simpler form. But the evidence does not depend in the least on a perfect scientific analysis:—it is complete and conclusive on the instant when we discover the existence of peculiar properties and laws in different substances, and the manner in which these substances, thus constituted, whether simple or compound, are applied in the processes of Nature so as to subserve important practical ends.

2. Besides the relations which subsist between different *inorganic substances*, there is a relation also between these substances and certain *fluids, forces, or dynamides*, which act upon them according to fixed and ascertainable laws, and which exhibit one of the most wonderful and useful of the manifold provisions with which nature abounds.

Take, for example, the relation which is established between two elements so widely different as fire and water; whereby, within certain limits, heat is easily diffused through water, so as to render it applicable to many necessary and important uses; while, beyond these limits, the water is converted into an elastic vapour, and puts into the feeble hand of man the tremendous power of Steam!

Or take, again, the relation which is established between the magnet and iron, or the loadstone and the pole; by which, among other uses, man is directed with unerring certainty across the trackless ocean, and has his power increased, and his comforts multiplied, by the art of Navigation !

A multitude of similar examples will readily occur to every reflecting mind.

3. The relations which subsist between *inorganic substances and organised structures* are peculiarly important, and might supply a multitude of examples, of which we can merely offer a few as specimens, without attempting any detailed explanation of them.

A striking specimen of this kind is the marvellous provision which has been made for *the growth and nourishment of vegetable and animal structures by means of unorganised substances and elementary agents*. This provision is twofold. There is, in every instance, an *internal apparatus* in the plant or animal itself, by which it is fitted to take in and appropriate to its own use that kind and quantity of nourishment which it requires : and there is also an *external aliment*, adapted to its wants, and constantly supplied from the air, the water, or the soil. In addition to both, there is the mysterious principle of *life*, which has power, wherever it is present, to suspend, to some extent, the ordinary influence of chemical agents on inorganic substances, and to convert what might otherwise be a cause of decay and dissolution into a means of growth and nourishment. It is truly wonderful to observe how admirably the organs of each plant and animal are adapted to the kind of aliment that is provided for them, and how they select, as it were, and separate for their own use, precisely that which they severally require. The relation between the two has recently been placed

in a clear and strong light by the researches of Liebig and Johnston, in which, connecting organic with inorganic Chemistry, they have shown that every plant or animal requires to be supplied, in certain proportions, with several elementary substances, and that these very substances are provided for them in the air, the water, and the soil, while they have organs fitted to receive and assimilate them. Thus considered, the whole system of material nature may be regarded as one vast Laboratory, in which inorganic substances are converted into different forms, and applied to various uses, by means of organs which serve the same purpose, but in a far higher and more perfect manner, as the vessels, the retorts, and the tubes of the scientific Chemist.

4. The *provision for supplying the aliment required* affords a distinct and additional instance. This is a specimen which carries our thoughts far beyond the relation subsisting between organised structures and their appointed food, and directs them to those stupendous arrangements and processes by which that food is gradually prepared for them. On a comprehensive survey of the processes of nature, we find, in the words of Dr M'Culloch,* “two parallel Progressions” throughout,—“*Life, and the Means of Life:*” and these are maintained continuously, in connection with an ever-recurring cycle of destruction and renovation. By the gradual disintegration of rocks; by the slow, but resistless and incessant, pressure of rivers and torrents; by the unseen agency of the coral beneath the surface of the sea; by the sudden action of subterranean, volcanic powers, preparation is made for the production and perpetual renovation of a soil, capable of affording food to the vegetable

* DR M'CULLOCH, “Proofs and Illustrations,” I. 135, 142, 277, 296, 300, 411, 420.

and animal tribes. That soil is enriched by their dissolution and decay; but by the action of wind and water it might soon be deprived of some of its most essential elements, were they not continually supplied from their original sources.

Looking to the general disposition of its surface, we observe that the earth is strangely diversified by mountain and valley, by rills, and rivers, and lakes. Looking, again, to its internal structure, we find a similar diversity there,—rocks and earth, metals and minerals, often apparently in a state of confusion, yet really arranged for the most part in regular strata. Were any one of these conditions wanting, the provision for supplying suitable soil and aliment to plants and animals would be proportionably defective. It is by the slow but incessant disintegration of rocks and mountains, that the valleys are continually supplied with fresh soil; it is by the rills and rivers that the precious deposit is brought down; and it is by means of the minerals and metals which man procures from the bowels of the earth, that he is enabled to carry on a vigorous and effective husbandry. But there is a more peculiar case, in which the process of preparation may be said to be going on before our eyes: we mean the production of the Coral reefs and islands in the ocean itself. They are formed by the unseen action of a minute animal, working under the water, and converting what it finds there, or in itself, into solid rocks, the foundations of future islands and continents. This is done by a marvellous Chemistry, of which as yet we know nothing. The animal rears the reef until it reaches the surface, but there its labour ends; and the diminutive labourer is succeeded by the mighty volcano, which upheaves and elevates the structure; it is soon supplied, through the air or the water, with seeds; the soil and

the seeds give rise to vegetation; and in a few years it becomes a fit habitation for animals, and may even be peopled with men!

5. The provision for *perpetuating the same typical form and the same organs* in each species of the animal and vegetable tribes is a signal instance of design, especially when it is viewed in connection with the corresponding provision for *supplying the same aliment on which their vitality depends*. Here is a marvellous adjustment, connecting the organic with the inorganic,—a constant supply of certain kinds of aliment, combined with a parallel provision for perpetuating in each species those very organs to which these kinds of aliment are adapted. Were either the aliment or the organs changed, while the other remained the same, the species would be destroyed; but the species is preserved, and that, too, by natural means, through a preordained adjustment between two distinct departments of nature, which have no assignable connection other than what arises from the *will* of a wise and skilful Agent. The constancy of Nature, as evinced both in the perpetuation of the same typical forms and specific varieties, and also in the continued supply of the same means of growth and nourishment, is not the less a proof of a presiding Providence that it depends on the operation of natural laws; for the adaptation between two classes of things, subject to different laws, yet rendered subservient to the same beneficent result, is the great fact on which our argument depends.

6. The universal *law of reproduction*, which applies both to the vegetable and animal races, affords many distinct examples of adaptation and design.

This great law is announced in the first page of Scripture, as having been proclaimed at the era of the Creation itself; and the Divine fiat, then authoritatively uttered,

has not yet spent its force,—it is still the cause of a *continuous creation*. It is well worthy of remark, that in regard to every distinct *genus*, whether of plants or animals, this provision is distinctly repeated. “God said, Let the earth bring forth grass, the herb *yielding seed*, and the fruit-tree yielding fruit *after his kind*, whose seed is in itself. And God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth. And God blessed them, and said, *Be fruitful and multiply*, and fill the waters in the seas, and let fowl multiply in the earth. And God said, Let the earth bring forth the living creature *after his kind*, cattle and creeping thing and beast of the earth *after his kind*.” And on the creation of man, “male and female,” God said unto them, “Be fruitful and multiply, and replenish the earth and subdue it.”*

The *law of reproduction*, thus announced from the beginning, has been ever since in constant operation; and it constitutes the natural provision for perpetuating the races, and multiplying the numbers, both of plants and animals. But there is considerable diversity in the methods of their propagation; and evidence is afforded by the varieties of the means as well as by the uniformity of the law.

The provision which has been made for *reproduction in the vegetable kingdom* is at once more abundant, and more varied, than that which has been ordained for the animal races. The chief method of perpetuating the vegetable species is by means of *seeds*; but there are several collateral and subordinate methods of propagation which serve greatly to promote their increase, and to enlarge man's power of artificial cultivation. The seeds contain

* Genesis i. 11, 20, 24.

the germ of life, and continue to be vital and prolific, after they have lain dormant for centuries, like the mummy wheat of Egypt. Many plants, at the lowest extremity of the scale of vegetation, appear to serve almost no other known purpose but that of producing seed; and this being accomplished, they decay and die. The excessive fecundity of some plants, beyond what is either required or used for the purpose of reproduction, serves a secondary but not unimportant end, in supplying food for the commoners of nature, who are fed gratuitously by the bounty of their Maker. “Behold the fowls of the air; for they sow not, neither do they reap, nor gather into barns; yet—*your heavenly Father feedeth them!*”*

In all cases, the most careful provision has been made for *protecting the flower and the seed*. In flowers, the essential parts for fructification and the production of seeds are the stamina, the pistils, and the pollen. The calyx affords protection by wrapping up the tender parts of the plants in a natural covering, admirably adapted to shield them from injury by air or water, and in some cases, as in the *Cistus*, where the flower is peculiarly delicate, the calyx is supplied with a natural varnish. Where the calyx is wanting or deficient, other expedients of equal efficacy are provided, as if on purpose to illustrate the boundless resources of omniscient wisdom. But there are other subsidiary and collateral methods of propagation. Plants may be raised from tubers and bulbs, from shoots and runners, from cuttings and grafts. Provision is made for preserving the bulbous roots during the utmost severity of winter, partly by the outer coat or skin, and partly by the earth which covers them. In the other cases, the variety in the method of propagation

* Matthew vi. 26.

greatly enlarges the power of man over nature, and gives rise to the arts of scientific culture.

The *law of reproduction*, as applied to *the animal tribes*, is adapted to the organs, the figure, and the propensities which belong to them respectively. We content ourselves with little more than the mere indication of this topic as one which affords a strong proof of intelligent design. It is illustrated by some of our ablest writers on Natural Theology.* We shall only observe that, in the case of the human species, the law of reproduction, when viewed in connection with the relation between the sexes,—the collateral provision for the nourishment of the young, and the strong instinctive feelings of the parents,—is one of the clearest examples that nature affords of a combination of distinct and independent means for the accomplishment of a most important end.—And in the case of the other animals,—whether oviparous or viviparous,—whether producing their young by means of eggs, or bringing them forth alive and fully organised, or even, as in the *monads* and fresh water polypus, by division and separation of parts,—we see a variety of methods of propagation similar to that which obtains in the vegetable kingdom; and every variety, when closely studied, exhibits its own peculiar evidence of wise contrivance and design. The animals which propagate a succession of their kind by means of eggs have no knowledge of the structure, constitution, or capabilities of these eggs, as containing the germ of animal life; they act under the sole impulse of *instinct*; and design, if design there be, can on no rational ground be ascribed to them: yet how skilfully has the egg been constructed,—how

* DR M'CULLOCH, "Proofs and Illustrations," I. 424.

SIR CHAS. BELL, "Paley," II. 44.

DR RAY, "Wisdom of God in Creation," p. 343.

carefully is it deposited, in nests of beautiful construction, or in sand conveniently situated, or in bays and estuaries of the sea, or in the leaves of trees and plants, according to the *habitat* and exigencies of different species,—how assiduously is it hatched, in some cases, by protracted incubation, how suddenly is it developed in others,—how affectionately the young are tended and reared, where maternal care is required,—how indifferently they are thrown off and left to themselves, when they can live without further superintendence!

7. Between *organised beings of the same species* we discern various relations which are strikingly illustrative of design.

In the case, for instance, of the human family, who has not observed with wonder and admiration the manifold varieties of figure, feature, complexion, and voice, which exist in combination with the same typical form? and who can fail to see the manifest uses to which these varieties are subservient? For had all men's faces resembled each other as eggs do, or had any considerable number been exactly alike, the whole business of life would have been thrown into inextricable confusion: mutual recognition would have been impossible; and government, in so far as it depends on judicial procedure, would have been superseded. Yet by a slight variation, the same typical form is so individualised that no two faces or forms are found to be perfectly alike; and this, too, in circumstances in which no natural cause, known to us, can be assigned for the difference; it is evidently the result of provident design.

The average equality, again, or at least the regulated proportion, which is constantly maintained between the two sexes, and which is manifestly adapted, on the whole,

to the wants of human society, affords another example in which man's will has no share, and for which no reason can be given other than the wise ordination of a presiding Intelligence.

8. The relations which subsist between *organised beings of different species*, and especially between *man and the lower animals*, afford examples of adaptation not less striking than those which have been noticed as subsisting between *individuals of the same species*. The relation which subsists between man and the lower animals affords a plain indication of design, such as is in exact accordance with the statement of the sacred writer, "Let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth." In the vast scale of being, we observe a manifest gradation from lower and more simple to higher and more complicated structures: and Man is evidently placed at the summit of the scale,—he is designed and fitted to have dominion over the subordinate tribes, which are all subservient to his use. It is true, that in point of size and strength, and in respect of several senses and organs, he is inferior to many of the subjects which have been placed under his sway; but, as an intelligent being, not guided by mere instinct, but capable of acquiring knowledge, and applying it to the arts of life, he is qualified to attain a mastery over the material world,—to extract from the bowels of the earth its rudest ores,—to melt, and mould, and fashion them into instruments adapted to his use, and subservient to his will,—and, thus armed and equipped, to maintain his lordship over all the inferior tribes. If he wants some organs and members which are peculiar to inferior tribes, and if he be comparatively deficient in others, it is just because he has no need of

them, and can supply their place by inventions and arts which afford a full compensation.

§ 4. The *fourth* class consists of adaptations between the Corporeal Organs and the Natural Dispositions and Habits of different animals.

Those who have prosecuted the study of Comparative Anatomy in a spirit of enlightened piety have contributed largely to swell the amount of proof in favour of an intelligent First Cause. A few specimens,—and these offered without any detailed illustration,—must suffice for our present purpose.

1. The *organs* of every animal tribe are adapted to their *natural instincts*. The phenomena of Instinct will afford hereafter a distinct and independent class of proofs; at present we assume their existence, and found on the manifest adjustment which subsists between them and the corporeal organs with which they are severally associated. The grey-hound is endowed with a keen scent and a natural instinct for the chase; it is furnished, therefore, with limbs which give it amazing fleetness. The bee is endowed with an instinct for architectural construction in wax, and for the manufacture of its luscious food; it is furnished, therefore, with organs which enable it to extract the requisite materials from the flowers and blossoms of the field, to convey them in safety to the hive, and to apply them to these admirable uses. All animals are endowed with an instinct of reproduction; and they are, therefore, furnished with appropriate organs adapted to that instinct, as well as to the diversity of sex. In considering these adaptations, it is worthy of remark that the instinctive disposition is often manifested before the corporeal organ is fully formed. “The young ram couches his head, and tilts at his ad-

versary, long before his horns have appeared ; and the young pheasant assails his antagonist with his projected legs, long before his spurs have begun to bud.”* How can the adjustment between two things, so manifestly different as *corporeal organs* and *instinctive dispositions* unquestionably are, be accounted for otherwise than by ascribing it to the *will of a designing Mind*? There need be no question, in such a case, whether “the organ determines the function,” or “the function the organ :”† it is the *adaptation* between the instinct and the organ on which the proof depends.

2. Another example of the same class may be found in the adaptations between *the organs and dispositions* of the several tribes of animals, and the *media* in which they are destined to live. Some animals are designed to live on the earth, others in the air, and others in the sea; while not a few are amphibious, and qualified to live in different conditions. Their organs are admirably adapted to these various destinations. Take, for example, the web-foot of a water-fowl. It has been well described as “an inimitable paddle.” “The flexor tendon of the toes of the duck is so directed over the heads of the bones of the thigh and leg, that it is made tight when the creature bends its leg, and is relaxed when the leg is stretched out. When the bird draws its foot up, the toes are drawn together, in consequence of the bent position of the bones of the leg pressing on the tendon. When, on the contrary, it pushes the leg out straight, in making the stroke, the tendons are relieved from the pressure of the heel-bone, and the toes are permitted to be fully extended and at the same time expanded, so that the web between them meets the resistance of a large

* DR KIDD, “Bridgewater Treatise,” p. 24.

† HOLYOAKE, “Paley Refuted,” p. 10.

volume of water.”* The same Noble Author gives a striking example in the head of the porpoise. If we examine its structure, “we find its cavities capable of great distension, and such that he can fill them at pleasure with air or with water, according as he would mount, float, or sink. By closing the blow-hole, he shuts out the water; by letting in the water, he can sink; by blowing from the lungs against the cavities, he can force out the water and fill the hollows with air in order to rise.” No one can doubt that such facts afford direct evidence of an apt contrivance directed towards a specific object, and adopted by some Power thoroughly acquainted with the laws of Hydrostatics, as well as perfectly skilful in workmanship.

3. Another example of the same class may be found in the diversified provision which has been made for the *protection* of the various animal tribes from *the injurious action of the medium in which they severally live*. Both the air and the water, although otherwise adapted to their organs, might be injurious to them, were they left exposed and unprotected. Partly for the purpose of defensive armour, and partly also for that of necessary clothing, some animals are covered with bristles, some with hair, some with wool, some with fur, some with quills and feathers, some with prickly protuberances, some with shining scales, and some with hard pieces of bone and shell. There is great variety in this respect; but it is a variety adapted to the different forms and habits of the animals, as well as to the different *media* in which they live: so that, as Dr Paley has justly said, “one animal’s coat could not be changed for another, without evidently changing it for the worse.”

4. Another example, belonging to the same class, may

* LORD BROUGHAM, “Discourse on Natural Theology,” pp. 33, 35.

be found in *the various organs for procuring food* which have been furnished to the different animal tribes, when these are viewed in connection with their instinctive dispositions, on the one hand, and with the *media* in which they live, on the other.—The varieties in the form and structure of these organs are peculiarly instructive, as they are specially adapted to the various kinds of nourishment which they respectively require, and to the various sources from which that nourishment is derived. Some tribes derive their nourishment chiefly from seeds ; others from grass and plants ; others from the juices of plants and trees ; others from animalculæ, or vermin, or other animals : and in every instance, the organ is adapted to these special uses. The flat mouth of man, who is furnished with hands to serve his mouth, would have been ill adapted to those animals which, destitute of hands, must depend entirely on the mouth for the reception of food : and hence they are supplied, some with projecting mouths,—others with snouts,—others with longer or shorter bills,—and others with an elongated and flexible proboscis. The projecting mouth of the horse, the ox, and the sheep, are admirably fitted for cropping and picking up the herbage on which they feed : the snout of the swine is constructed for digging up roots, while the lower jaw works underground and meets the other where its service is most required : the bills of birds, and the teeth of other animals, are composed of a substance similar to that of their nails or hoofs, but of a harder consistence, and so shaped as to be adapted to the wants of each particular species. The proboscis of the elephant, which is long and flexible, is evidently a compensatory provision, designed to supplement his short and unyielding neck, which, again, without its great strength, could not have supported his massive and heavy head.

5. The varieties in *the organs of locomotion* afford an additional example. They are carefully adapted, in every instance, to the form, size, and weight of the animal, and to the nature of the element in which it is fitted to live. In Man, we have a figure intended to move in an erect posture, supported only by one pair of limbs and feet. The body is so nicely proportioned, and so adjusted to the law of gravity, that he can walk, run, and leap, and assume a variety of postures, without losing his balance, although he would instantly fall were the mysterious principle of life withdrawn. In quadrupeds, we have a vast variety of figures intended to move chiefly in a horizontal position; and they are furnished with two pairs of limbs and feet, adjusted to their several forms and sizes. Many other tribes are furnished with a much larger number of limbs, but all adapted to their peculiar conformation and habits. In birds, the chief organs of motion are wings, the bones of which have a strong resemblance to the fore-leg of a quadruped, but are covered over with quills and feathers; and these are so arranged that, by the action of the muscles, the wing, as it flaps, is alternately dilated and contracted, so as to enable the bird to ascend, or to skim along, or to fall at pleasure, and to regulate the direction and velocity of its flight. The tail is a subsidiary instrument, serving the same end. But as birds, although fitted to live and fly in the air, were also designed to move on the surface of the earth, they are also furnished with legs and feet: and these in some cases aid them even in their flight, as they are kept close to their bodies, and stretched as far back as possible, to assist the action of their tails. In fishes, again, the chief organs of motion are the fins and the tail. The fins are placed on the sides, the back, and the belly; and serve chiefly, although not exclusively, to balance the body of

the fish in the water, while it is propelled mainly by the force of its tail. The fish, in its structure, is admirably adapted for swift and easy motion through the water, as its form nearly resembles the figure which Mathematicians have called the solid of least resistance. Many other instances have been enumerated by writers on Natural Theology.*

6. The *mechanical structure of the bones* is different in different animals, but is adapted, in every instance, to their respective dispositions and habits, and fitted to subserve the uses for which they were designed. They are larger or smaller, heavier or lighter, just as the case requires. A bird with bones like those of an ox could not fly. To mount into the atmosphere, its bones must be strong and light. Accordingly they are for the most part hollow, and contain no marrow. How different in some respects, and yet how similar in others, are the bones of a fish, of a man, of a quadruped, and of a fowl: and yet both the points of resemblance, and those of diversity, serve only to enhance the evidence of intelligent design.

§ 5. The *fifth* class consists of—Variations from ordinary Forms and Methods for Special Ends.

This class of examples includes the peculiar organizations,—the provisional compensations,—and the interrupted analogies, of which Dr Paley speaks.

It affords a very striking and conclusive evidence,—for any departure from the typical forms or the ordinary methods of nature, when it is clearly seen to be subservient to some subordinate or collateral end, serves to illustrate at once the infinite resources of its Author, and

* DR C. M. BURNETT, "The Power, Wisdom, and Goodness of God in the Animal Creation," p. 266.

the particular care which He has bestowed on each of His works.

1. In all ordinary cases, the teeth are firmly fixed in the jaws, and the animal has no *direct* power over them: it moves and makes use of them only by means of the jaws. But in the case of *the viper*, there is a remarkable variation from this general rule: one tooth is not fixed immoveably in the jaw, but is left loose. In a state of rest or inaction, it lies flat on the jaw, but by means of a muscle which is attached to it, it can be suddenly raised. It is not solid, but perforated, and the bore of this hollow tube communicates with a small vessel or bag which supplies the venomous humour, by which the viper is distinguished from the innocuous serpents: and this humour is only sent out, when the tooth, raised by muscular power, compresses it into the hollow tube. There is here a remarkable variation from the ordinary rule: but it is such an exception as enhances the evidence; it is a specific provision for a distinct and definite end.

2. In ordinary cases, the young are either able from their birth to walk, or fly, or swim, or they are carried in the arms of their parents, but in the case of the *opossum* it is otherwise, and a special provision is made for it. "A false skin under the belly of the animal forms a pouch, into which the young litter are received at their birth; where they have an easy and constant access to the teats; in which they are transported by the dam from place to place; where they are at liberty to run in and out; and where they find a refuge from surprise and danger." *

3. In ordinary cases, the *stomach* is constructed to receive supplies of food and water at stated intervals, and in a measure proportioned to the immediate wants

* BROUGHAM and BELL's "Paley's Natural Theology," II. 194.

of the animal: but in the case of the camel, there is a remarkable variation from this general rule. The exigencies of life in the desert were to be provided for. These demanded a supply of water, where water is seldom to be found. Had the whole water which is taken up at one time passed at once into the stomach and intestines, as in the case of the horse, the camel would still have been equally dependent on frequent external supplies. But it does *not* pass at once into the intestines, nor is it all immediately mixed with the food. After the stomach is full, it passes into a large number of bags, specially provided for its reception, and is squeezed back into the stomach, in a state of sufficient purity to minister nourishment and refreshment, by means of muscular pressure called into action at the demand of thirst.

4. In ordinary cases, the *tongue* corresponds with the size of the mouth, and is adapted to the simple reception and treatment of food: but in the case of the *wood-pecker* there is a remarkable variation from the general rule. It is provided with a tongue so long that it protrudes at pleasure several inches beyond the bill; a tongue which is strong and sharp, and so constructed as easily to seize its prey. When it is considered that this bird finds its food chiefly in old trees and wood,—that it is furnished with a sharp bill by which it can perforate their substance,—and that the tongue, so peculiarly constructed, is ready to lay hold of the insects on which it feeds, we can hardly fail to discern several distinct adjustments, all indicating, in a case of *variation*, the most consummate skill.*

5. In ordinary cases, the bones are covered with a membrane, called the *periosteum*, which is sensitive; but in the case of the *téeth*, there is a remarkable variation

* SIR CHARLES BELL, "Note on Paley," II. 197.

from the general rule. They are covered, not with a soft integument, such as could not bear exposure and constant tear and wear, but with an enamel of ivory, which serves to protect them, and to adapt them to the uses for which they are designed. And here we have a striking example of what Dr Paley calls “interrupted analogies.”—Another example of the same kind may be found in the *nails* of the toes and fingers; in which the scarf-skin,—the ordinary covering of the body,—is superseded by a hard horny substance.

6. In ordinary cases, *the head and neck* are so constructed as to be fit for service without any other appendage; but in the case of *the elephant* there is a remarkable variation from this general rule. It is furnished with a long flexible tube or proboscis, without which, from the peculiar conformation of its neck and head, it would have been unable to reach the ground, or to obtain suitable supplies of food and water. Its neck is comparatively short, and this, probably, by reason of the great weight of the head; for although it is supported, as in the case of other quadrupeds, by strong elastic cartilages, yet so great a weight, acting at the end of a *long lever*, would have been insupportable without some subsidiary provision. That provision might have been an enlargement or a multiplication of the elastic cartilages: but the one that has been actually adopted affords a fine example of *a variation for a specific end*.

7. In ordinary cases, the *eye* is protected by eyelids or fringes, which open and shut and serve many important uses in connection with that delicate organ; but in the case of the *chameleon*, there is a remarkable variation from this general rule. Its eye is remarkably prominent, and, therefore, requires extraordinary protection. It is furnished, accordingly, not with eyelids opening and shut-

ting alternately, but with a covering which has a hole in it, and which admits sufficient light to the pupil of the eye, while the ball is at the same time protected.

8. In ordinary cases, where the bones require to combine the different qualities of strength and lightness, they are hollow, cylindrical tubes, and generally empty: but a remarkable variation occurs in *the head of the spermaceti whale*. "There is a very large cavity in the upper part of the skull entirely filled with *spermaceti*, which renders the head of this enormous animal sufficiently buoyant to keep the blow-holes above the surface of the water." *

9. The *different forms of the same organs* in different animals exhibit a general uniformity of plan, with innumerable variations for special ends. Compare the *foot* of an ox, of a horse, of a camel, of a rabbit, of a mole, of a cat, of a dog, of a rat, and of a mouse; and having examined the points both of resemblance and diversity in their several structures and forms, consider the circumstances in the habits of each of these animals which required such special adjustments; and you will be prepared to estimate the strength of this peculiar evidence. We discern "a designing Mind, adhering to a general intention, but modifying the details so as to meet peculiar exigencies." †

10. In ordinary cases, the *foot* of land animals is the instrument of motion; but where it is wanting, its place is supplied by a subsidiary provision adapted to the instincts and habits of the particular species. Thus in the *ophidians*, which have no feet, a power of motion is supplied by the size and flexibility of the *spine*, and a very large number of muscles, computed to amount in some cases to four thousand.‡ The flying lizard, again,

* SIR E. HOME, "Lectures," i. 79.

† DR McCULLOCH, "Proofs and Illustrations," i. 249.

‡ DR BURNETT, "The Animal Creation," pp. 262, 268.

is furnished with a skinny protuberance resembling a wing.

11. One of the most remarkable instances may be found in the law which regulates the density of water in proportion to its temperature. In ordinary cases, all substances, whether fluid or solid, contract as they cool;—and within certain limits, this law holds good in regard to water. From the 212th degree down to the 40th, it contracts in proportion as the temperature is lowered: and thus becoming more dense, the upper stratum of water in our lakes and rivers becomes heavier than the subjacent strata, and of course descends from the surface to the bottom. If this process had gone on without variation, our lakes and rivers would have been converted in a protracted season of frost into dense, solid masses of ice, to the inevitable destruction of all their living inhabitants. But by a remarkable variation,—similar to that of Babbage's Machine,—before water reaches the freezing point, it acquires its *maximum* density,—and thereafter, instead of contracting, it expands, so as to float on the surface, and form a secure covering during the utmost severity of winter!

§ 6. The *sixth* class consists of examples of—Prospective Arrangements with a view to Ulterior Ends.

The evidence of *design*, which is supplied by the structure and functions of created beings, is greatly strengthened by the careful provision which has been made for *the future production* of certain organs and powers which were not required in the first instance, but which are forthcoming at the proper time.

1. We have a twofold example of this in the *human teeth*. Provision is made beforehand for their production, but not immediately: and provision is also made

for the removal of the first set, and the supply of another better adapted, in size and strength, to a mouth and jaw which are gradually enlarging. The teeth are withheld while the infant is to be nourished by its mother's milk ; they are supplied when it is to be supported by a diet which requires cutting, grinding, and chewing. The first teeth must necessarily be small, and must soon be separated from each other by the gradual expansion of the jaw, unless provision were made for *their growing* in exact proportion to the enlargement of their receptacle. A different, but equally effective, provision has been adopted ; they are gradually loosened and removed, while their place is supplied by another set, better adapted to the uses of adult life.

2. Another example of the same class occurs in the *fœtus*,—or rather it affords as many examples as there are organs in the human body. The bones, the muscles, the nerves, the heart, the lungs, the arteries, the veins, the stomach, the bowels, the eye, the ear, and all the other members are “curiously fashioned in secret,” while as yet there is no immediate use for them, and no possibility of their being called into actual exercise. They are evidently formed *with a view to an ulterior end* ; and that end becomes manifest at the instant of birth, when the lungs are inflated with air, and the arteries filled with blood, and the eye opened to the light.

3. The *preparation of soils*, and the *production of seeds* for fructification (already mentioned, but in a different connection), is manifestly a prospective provision for an ulterior end,—a provision so important that on its permanent maintenance the whole system both of vegetable and animal life mainly depends. The *disposition, too, of the strata of the earth* is obviously designed and fitted to make its mineral treasures available for the use of man.

These strata were either arranged as they now are from the beginning, or they have been upheaved and disturbed, probably by volcanic agency. On either supposition, they afford conclusive evidence of a prospective arrangement for the benefit of man. If they had been deposited in a horizontal position, they would have been, for the most part, useless to him. He could have availed himself only of such as he might be able to reach by direct downward excavation; and he would have had no sufficient motive to undertake or prosecute so arduous a work, ignorant as he must have been of any other treasures than such as appeared near the surface. But these strata are not horizontal. They are so arranged that, however deeply they may penetrate into the bowels of the earth, there are certain points at which they appear at or near the surface:—they show themselves sufficiently to invite the attention, and stimulate the industry of man: and thus provision has been made beforehand for putting him in possession of those mineral treasures on which the comfort and civilization of society so much depend.

4. The *provision for fuel*, on which man is dependent both for the comforts of life and the arts of industry, is one of the most remarkable examples of this class. The deposits of *peat* and *coal* have been slowly accumulating for ages, and are so situated as to be accessible to the industry, and available for the benefit, of man. For thousands of years the vegetable matter of which they are mainly composed, had been accumulating before they were required for his use. “If a created and intelligent being from some other sphere had alighted on this globe during that remote period when the vegetation now dug out of the coal formation covered the surface with its gigantic growth, he might have felt as if there was a waste of creative power. Why, he might have

inquired, is there such a profusion of vegetable forms, and such a colossal development of individual plants? To what use can such vast forests be applied? But let ages roll by, and let that same being revisit our world at the present time. Let him traverse the little island of Britain, and see there fifteen thousand steam-engines moved by coal dug out of the earth, and produced by these same ancient forests. Let him see these engines performing the work of two millions of men, and moving machinery which accomplishes what would require the unaided labour of three or four hundred millions of men; and he could not doubt but such a result was one of the objects of that rank vegetation which covered the earth: irresistible must be the conviction upon his mind, that here is a beautiful example of prospective benevolence on the part of the Deity.”*

5. The *formation of certain mineral deposits*, in so far as we are able to trace their history, affords another illustration of prospective wisdom planning for the accomplishment of future ends. We may select, as an example, the valuable and useful mineral, *lime*, so necessary to the arts of architecture and agriculture. So far as its history can be traced, it is produced from shells, and these again from calcareous matter secreted from the waters by shell-fish. It serves an immediate purpose, as a shell, in protecting the fish; but when the fish dies, its covering is either dissolved in the water, or deposited in beds on the bottom of the seas or lakes. These exuviae become lime-stone; and when, by volcanic or other agency, the sea or the lake becomes dry land, it is the quarry whence man derives his materials for enriching his land and rearing his architectural fabrics! “Between the means and the end, what intervention of time! what

* DR M'CULLOCH, “Proofs and Illustrations,” I. 479, 495.

complexity of operation! what revolutions of the globe! Who, looking on the mollusc as it extracted its testaceous secretion from the waters of the deep, could have recognised there the preparatory stages of human architecture? But why should we marvel at the connection, when all is of God, and ‘known unto Him are all His works from the creation of the world.’” *

6. The provision which has been made beforehand for *the immediate supply of nourishment to young plants and animals* on the instant when it is needed, affords another example of wise prospective arrangement. The seeds of most plants contain a certain amount of nutritious matter, which is conveyed by minute vessels to the *germ*, obviously on purpose to supply it with the nourishment which contributes to its growth. In like manner, an egg contains a supply of nutritive matter, provided beforehand for the *chick*, even while it is yet in the shell. In the case of man, the *fœtus* is nourished by the mother’s blood, through means specially contrived and adapted for that end; and as soon as the infant is born, it finds a supply of genial nourishment provided for it in the mother’s breast. The last instance is specially instructive. “It is not easy,” says Dr Paley, “to conceive a more evidently *prospective contrivance* than that which, in all viviparous animals, is found in the *milk* of the female parent. At the moment the young animal enters the world, there is its maintenance ready for it. The particulars to be remarked in this economy are neither few nor slight. We have, first, the nutritious quality of the fluid, unlike in this respect every other excretion of the body, and in which nature hitherto remains unimitated, neither cookery nor chemistry having been able to make milk out of grass; we have, secondly, the organ for its

* DR KING, “The Principles of Geology,” p. 134.

reception and retention; we have, thirdly, the excretory duct annexed to that organ; and we have, lastly, the determination of the milk to the breast at the particular juncture when it is about to be wanted. We have all these properties in the subject before us; and they are all indications of design."

7. Another prospective arrangement, strongly indicating wise and deliberate forethought, may be found in *the proportion which has been established between the number of teats belonging to the females of different species, and the number of their young*. The teats are formed as parts of one animal, long before it has any offspring; yet they are formed to correspond in respect of number with the young ones for whose nourishment they are designed at a later period.

8. There is a prospective provision for the *preservation of food*, with a view to the regular supply of man and other animals at such seasons as it could not be procured direct from the earth. Without this supply every living race might soon have become extinct. Some such provision was rendered necessary by the succession of the seasons. Had there been a perpetual summer, the living tribes might have subsisted on the roots or fruits which might then have been supplied to them day by day continually: but the winter and spring must be provided for; and accordingly provision is made in many different ways for the wants of every living thing. First of all, the seeds of plants, which are designed both for the purpose of nourishment and fructification, are so constructed as to retain their properties unimpaired for a considerable time: they may be stored up, so as to afford a seasonable supply of wholesome food at a time when nothing fitted for the support of life is to be found in the bare and naked fields. Secondly, such of the products of

nature as are more liable to decay,—some kinds of fruit and most animal substances,—are capable of being artificially preserved, and the means of their preservation are provided. Thirdly, the food which is destined for the commoners of nature, and which man is not supposed to have any interest in caring for, is of a more hardy and enduring kind, and remains on the hedge-rows or trees long after winter has set in. And fourthly, the food which is so carefully and skilfully elaborated by the bee and others, is such as is capable of being preserved as long as it is required for their wants.

§ 7. The *seventh* class contains examples of—Design in the established Order of Successive Events.

It was suggested by Professor Robison, in a happy and very comprehensive generalization, that all Inductive Philosophy might be divided into two great branches: the one, the science of *contemporaneous nature*,—the other, the science of *successive nature*: in other words, the science of Co-existence and the science of Succession.

The science of contemporaneous nature takes cognisance of the constitution and structure of natural *objects*; the science of successive nature takes cognisance of the order of natural *events*. Great changes are continually going on in nature; and the stupendous powers and processes by which they are produced exhibit no symptoms of random agency, but are evidently regulated and governed with a view to wise and beneficent ends. Hence the phenomena of successive nature, or *the series of events* which occur in it, may indicate design not less than the orderly arrangements of *organised forms*.

On a superficial view, indeed, the succession of events may seem, in many instances, to be irregular and even

fortuitous, chiefly because the laws by which they are regulated are either unknown or very imperfectly understood. "The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh, or whither it goeth;" yet, proverbially uncertain as wind and weather are, they are regulated by laws as stable as those which determine, with mathematical precision, the movements of the heavenly bodies; and the average result is such as is adapted to the wants of the world.

Now, *orderly sequences* may indicate design not less than *organised structures*. A series of events may be so arranged, or several distinct and independent series may be so adjusted to each other, as to subserve some useful end, and to demonstrate, by their subserviency to that end, the existence of a presiding and powerful Intelligence.

The truth of this principle may be familiarly illustrated, as well as firmly established, by analogous cases derived from indications of human intelligence. The structure of a watch demonstrates the skill of the watch-maker: but the successive labours of the field, and the regulated rotation of the crops, do equally demonstrate the skill of the husbandman. In the one case, there is *co-existence* of parts; in the other, *succession* of events; but in both, an orderly arrangement and a skilful adjustment of means to ends.—Or, to take another illustration,—let any one read the "Despatches" of the Duke of Wellington,—the noblest monument of military genius since the days of Cæsar,—let him consider especially his earliest exploits in India;—how carefully he watched over the Commissariat-department, ordering supplies to be provided at each successive stage in his line of march, and these supplies exactly proportioned to the number and wants of

his troops,—how skilfully he arranged beforehand the distribution of his forces, ordering them to march and countermarch by different routes, and to meet from various quarters at one commanding point: and having considered all this, let him suppose that he had been a spectator of these movements,—that he had seen convoys of provisions and munitions of war passing to and fro, and depositing supplies at convenient stations,—that he had seen the troops making their way through pathless jungles and defiles, till they reached the points at which these supplies were provided for them, and then proceeding till all were assembled at the point of attack or defence,—could he for one instant doubt that these successive movements were regulated by a skilful general, or could he dream of ascribing the operations of a campaign to any other cause than the wisdom and power which contrived and accomplished so many difficult combinations?

But no analogy derived from the affairs of men can afford an adequate illustration of the vast scheme by which *all* events are determined and regulated, and all natural agencies are made subservient to the accomplishment of the Divine Will. The series of changes, or the succession of events, which occur either in the material world or in human history, affords an evidence, not only of the *being*, but of the *providence* and *government* of God: and for this reason, examples belonging to this class are peculiarly valuable, as having a tendency to impress our minds with a sense of God's continued care and constant agency in nature, and to make us feel that "He is not far from every one of us,"—that "in Him we live, and move, and have our being."

Let any reflecting mind consider the regularity of the following sequences;—the constant succession of day and

night, with the corresponding succession, in the case of man, of labour and rest ;—the invariable succession of the seasons, with the corresponding succession, in the case of the vegetable tribes, of growth, fertility, and decay ;—the uninterrupted series of organic beings, preserved and propagated through a long succession of ages ;—the ever-recurring alternation of the tides, the irregular but never-ceasing movement of atmospheric and marine currents ;—the perpetual process by which water is converted into vapour, and again condensed, the same elemental particles being preserved through a countless series of transformations ;—the respiratory action of the lungs, and the corresponding expansion and contraction of the heart, concurring to maintain the circulation of the blood ;—the succession of infancy, youth, and manhood in the case of individuals, with the corresponding stages of development in the historic progress of social life ;—above all, let him review the facts of his own personal experience,—the history of his own life and its manifold vicissitudes,—the lessons which he has been taught, and the wisdom which he might have acquired, by studying the events which have befallen himself or his family ;—and can he seriously doubt that, however fortuitous many of them may sometimes appear to be, the course of natural events is regulated by certain fixed and invariable laws, and that, in so far as they can be ascertained or understood, they are admirably adapted to wise and beneficent ends.—These facts afford a demonstrative proof of design in the *government*, as well as in the *structure* of the world ; and he who thinks of them most habitually will respond to the Psalmist's words, "Whoso is wise, and will observe these things, even he shall understand the loving-kindness of the Lord." The order which prevails in the sequences of nature shows that the earth is still sustained and regulated by wisdom and power.

And as this is true of the course of natural events, so it is equally true, although it may not be equally apparent, in regard to the history of human affairs. We may discern “the Hand of God in History.”* The profoundest Historians have endeavoured to delineate the Historic Progress of the Race, and to discover the Laws of social development. And every theory of development and progress implies order in the succession of events. It proves a constant Providence. Some, indeed, refuse to look beyond the *laws* of nature, and seek to substitute these laws in the place of God. But this is a miserable perversion of the truth. It assumes that these laws are sufficient to account for every thing, while it offers no account of the laws themselves. It affords no explanation either of the origin of these laws; or of the manifold adjustments both of law to law, and of one series of events to another, by which a multitude of useful ends are effected. Nor can any other explanation be given of them than that they are the ordinations and arrangements of an Omniscient Mind,—which overrules all events for the accomplishment of its own stupendous purposes; and educes “good out of evil, order out of confusion, and light out of darkness.”

§ 8. The *eighth* class consists of examples derived from *the use of one agent for a vast variety of ends*, and *the concurrence of a vast number of agents for one and the same end*.

To what a variety of useful purposes is the common air rendered subservient! It is adapted to the respiration of plants and animals, and is an indispensable support of life. It bears up on its elastic expanse myriads of the feathered tribes, and sustains the clouds of heaven.

* HOLLIS READ.—HERDER.

It is the chief agent in evaporation, and the medium of rain and dew. It is essential to combustion. It is instrumental in diffusing the rays of light. It propagates sound, and thus contributes to speech and music. It combines, in whole or in part, with innumerable substances, forming various compounds with different properties and affinities, and thus enters largely into the Chemistry of nature. To so many and such widely different ends is this *one* agent rendered subservient!

And yet, in another view, how many agents must *concur* for the production of the most common effect! For the growth of a blade of grass, there must be the preparation of a soil, from the attrition of rocks and the decay of previous vegetation;—the deposition of a seed, with vital properties;—the transmission of light and heat from the solar orb;—the presence and purity of the circumambient air,—the supply of seasonable moisture,—the provision of carbon and ammonia for its nutrition:—all these and many more must *concur* as indispensable conditions of its growth, and in the absence of any one of them it must dwindle and die! And on such a view of the constitution of nature, how natural is the sentiment of the Psalmist—“Great and marvellous are thy works: in wisdom hast thou made them all!”

§ 9. The *ninth* class consists of examples derived from the Phenomena of Instinct in the lower animals.

There are some instincts that are *common* to all animals, and some that are *peculiar* to distinct species. In both, we find innumerable and very striking proofs of intelligent design.

1. All animals have an instinct which prompts them to seek, and guides them to select, their appropriate nourishment. The sense of hunger and thirst, or some

analogous provision, reminds them of their want of aliment or refreshment, and prompts them to partake of the supplies which nature has so bountifully provided. In doing so, they are directed to the selection of that food which is suitable for them. There are several distinct adaptations here. There is an adaptation between the *instinctive desires* and the *corporeal organs* by means of which these desires are gratified. There is an adaptation, again, both between the *instincts* and the *organs*, and the *external aliment* which is appropriate to the use of each particular species. There is a still further adaptation between that *aliment*, and the organs of *mastication and digestion* by which it is prepared and assimilated. "Nothing affords a more striking proof of Creative wisdom, and of the most wonderful adaptation of means to an end, than the diversities of structure with a view to this particular function. If we consider the infinite variety of substances, animal and vegetable, produced from the earth, which form the nutriment of its inhabitants,—some solid, and not easily penetrable,—others soft, and readily severed and comminuted,—others again, fluid or semi-fluid, we may conceive what a vast diversity of organs is necessary to effect this purpose." * But a diversity of organs would be of no avail without a diversity also of instincts; and both are provided for the same end.

2. Most animals have an instinct which prompts them to *take care of their young*, and to make provision for them both before and after their birth. This instinct exhibits many instructive varieties. In the case of oviparous animals, there is generally the construction of a nest,—the process of hatching,—and the subsequent provision of suitable food. In the case of the *mammalia*, a plenti-

* REV. W. KIRBY, "Bridgewater Treatise," II. 220, 267.

ful supply of nourishment is provided in the mother's milk, while she is prompted by instinct to give, and they to receive it. In the case of reptiles and fishes, which show less care for their young than most birds and quadrupeds, less care is needed, since the young can generally shift for themselves. The *saurians*, which desert their eggs, are careful to select a proper place for their reception. In the case of Man only, the care and love of parents are permanent. The instinct is various; but adapted in every instance to the wants of the young.

3. Of the instincts that are *peculiar* to distinct species, none is more wonderful than *that of the Bee*. It is at once an architect and a manufacturer. It selects the materials for making wax and honey; it constructs suitable receptacles, and it stores up its winter's food. "The work of bees," says Lord Brougham, "is among the most remarkable of all facts. The form is in every country the same,—the proportions accurately alike,—the size the very same to the fraction of a line, go where you will: and the form is proved to be that which the most refined analysis has enabled Mathematicians to discover as of all others the best adapted for the purposes of saving room, and work, and materials. This discovery was only made about a century ago; nay, the instrument that enabled us to find it out,—the *fluxional or differential calculus*,—was unknown half a century before that application of its powers. And yet the Bee had been for thousands of years, in all countries, unerringly working according to this fixed rule,—choosing the same exact angle of 120° for the inclination of the sides of its little room, which every one had for ages known to be the best possible angle,—but also choosing the same exact angles of 110° and 70° for the parallelograms of the roof, which no one had ever discovered till the eighteenth century,

when Kœnig solved that most curious problem of *maxima and minima*, the means of investigating which had not existed till the century before, when Newton and Leibnitz invented the Calculus, whereby such problems can now be easily worked. It is impossible to conceive any thing more striking as a proof of refined skill than the creation of such Instincts."

4. The *instinct of the Ant* is also very remarkable. It is referred to in Scripture as affording a lesson or an example to man himself. "Go to the ant, thou sluggard! consider her ways and be wise: which having no guide, overseer, or ruler, provideth her meat in the summer, and gathereth her food in the harvest." "There be four things that are little upon the earth, but they are exceeding wise: the *ants* are a people not strong, yet they prepare their meat in the summer." * They are here described as industrious and provident insects,—a description which applies only to certain species of them. But the *constructive* instinct is common to them all. The *tree-ant* forms its nests on the boughs of trees, using chiefly thin layers of cow-dung, which are piled over each other like slates on a roof, while arched apertures are made, yet so as to leave the interior impervious to rain. The *black* and the *white* ant have instincts equally remarkable.

5. In the *Beaver*, the adaptation of the instinct to the organs of the animal is peculiarly striking. It has five toes on each foot, but the fore-leg, which serves as a hand, is very differently constructed from the hind-leg. The hands are used in feeding, and also in conveying the wood, stones, and mud, which are used in constructing their buildings. Furnished with long sharp teeth, they gnaw round the trees which they require, and drag them to the place where they are to be used. Of a particular

* Proverbs vi. 6, xxx. 24.

kind, Mr Kirby says that "they have the foresight to fell their timber early in the summer. They set about building some time in the month of August. Those that erect their habitations in small rivers or creeks, in which the water is liable to be drained off, with wonderful sagacity provide against that evil by forming a dike across the stream,—almost straight where the current is weak, but where it is more rapid curving more or less, with the convex side opposed to the stream. They construct these dikes or dams of the same materials as they do their lodges, viz., of wood, of stones, mud, and sand." *

6. Among the "four things" mentioned by Solomon "which are little upon the earth, but exceeding wise," the *Spider*, it is said, "taketh *hold with her hands*, and is in kings' palaces." Her hands, or organs of prehension, are here specially selected as illustrative of the peculiar powers of this insect, and its natural instincts are adapted to them. Its organs are so constructed, that it can walk on a plain and even a polished surface, with its head and back downwards;—for a thick brush is attached, which enables it to climb walls, and to walk in safety in an inverted position. The spider has also an instinct for spinning or weaving. Its web is constructed, in some cases, by means of a double row of spines, so adjusted as to form a sort of natural carding machine,—in other cases, by a series of claws. The web is used as a net for catching flies, and for other uses. The materials for its construction are supplied by little organs like teats, which produce the fluid matter that is spun into threads.

7. The *gregarious habits* of some animals, and the *solitary or independent habits* of others, can hardly be accounted for otherwise than by ascribing them to a pe-

*REV. W. KIRBY, II. 510.

cular natural instinct in either case.—Most of the animals that are domesticated for man's use exhibit this instinct; and it serves greatly to enlarge his dominion over them. Many beasts and birds of prey are entirely destitute of it; and are thus rendered much less formidable than they would otherwise have been.

8. The instinct of *periodic migration* which belongs to some species of birds and fishes, and the instinct of *periodic torpidity or hibernation* which belongs to certain other animals, are also in the highest degree remarkable. This instinct is referred to in Scripture. "The stork in the heaven knoweth her appointed times; and the turtle and the crane and the swallow observe the time of their coming." It is truly marvellous, and were it not so well attested it might seem incredible, that a small bird like the swallow should undertake a long aerial voyage across the seas,—that it should sustain itself on the passage, and return at the proper season. It is still more marvellous, when these migrations are known to stand connected "with the curve of annual temperature," and to exhibit "a phase of animal life dependent on the ordinary movement of our globe in its orbit." * The phenomena of *hibernation* are analogous, in some respects, to the former; but differ from them in this, that the animal avoids the rigour of winter, without any change of place, by falling into a state of *torpidity* for three, four, or six months at a time, and revives again at the approach of a milder season.

9. The instinct of the *caterpillar* and the *butterfly* is a very singular one. The butterfly deposits its eggs "in the precise substance,—that of a cabbage, for example,—from which, not the butterfly herself, but the caterpillar,

* DR JOHN FLEMING, "The Temperature of the Seasons,"—a popular, yet thoroughly philosophical treatise, p. 139.

which is to issue from her egg, draws its appropriate food. The butterfly cannot taste the cabbage: cabbage is no food for her; yet in the cabbage, not by chance, but studiously and electively, she lays her eggs." The caterpillar is nourished by the cabbage. By and bye, it is transformed into a butterfly:* and the change of instincts which accompanies this transformation, and which adapts it to its new organs and its new state of existence, affords an additional example of the same class.

§ 10. The *tenth* class consists of—Mental Adaptations.

We have already seen, that it is chiefly from our own consciousness, as living, intelligent, and active beings, that we are qualified to form the idea, and to discern the evidence, of a wise, personal God. But it remains to be added, under this additional class of proofs, that the Mind itself affords a very peculiar and important kind of *evidence*, arising partly from the mutual adaptation of its different faculties to each other,—partly from the adjustment of these faculties to the corporeal organs,—and partly from the relations which have been established between the human mind, and the constitution and course of external nature. This evidence is substantially the same with that which is afforded by the adaptations of physical nature: but it is derived from a different source, and constitutes the Psychological branch of the evidence of Natural Theology. In the structure of the Human Mind,—the relation which subsists between its various powers,—their adaptation to the constitution of external nature,—and their adjustment to the conditions of human life, we discern similar marks of design to those which are exhibited in the formation and uses of material objects, or organised beings: and these we ascribe in

* DR PALEY, "Natural Theology," II. 243.

both cases, and for the same reason, to the will and power of the Creator.

An inquiry into the constitution and laws of the human Mind may develop many new proofs of Divine wisdom, which, if they be less apparent and obvious, are not less convincing, when clearly discerned, than those which are furnished by the science of matter. Both body and mind are, to a certain extent, subject to the control of man's will, and liable to be affected, injuriously or otherwise, by his inclinations and habits; but each is subject, notwithstanding, to certain general laws, over which the will has no control, and in which we discern a wise and skilful adaptation of means to ends.

1. It may help to prepare us for conceiving aright of this class of proofs, if we select, as our *first* example, the *animal instincts which belong to man*, and which are adapted both to his mental and corporeal nature. These instincts have some resemblance to the operations of intelligence,—and yet they differ from them in many respects. They are the product neither of instruction, nor of habit, nor of imitation; they belong to all individuals of the same species, apparently in the same degree,—and they continue the same from age to age, without deterioration, and without improvement. They serve many obvious and most important uses; and whether considered singly, or in connection with each other, they afford conclusive evidence of wise design.

In the case of a human infant, we discover a remarkable *combination*, and an equally remarkable *succession*, of such instincts. There is, first of all, not only an appetite for food, in virtue of which it craves for it and readily receives it, long before it knows what food is, or how it tends to nourish the body, or what consequences would follow from the want of it,—but it is also pecu-

liarly disposed by instinct to receive the precise nourishment which nature has provided for it, and even to exert its little energies in drawing it forth: it sucks, and it swallows by instinct, while as yet it has no teeth for preparing other food, and no light of reason or experience for its guide. In the progress of years the appetite remains, but the aliment is changed: other food is provided, and other instruments by which that food is masticated for digestion. Both the instincts and the organs differ at different stages; but are always adapted to each other, and to the wants of man.

In this connection, we may notice what has often struck us as one of the most signal proofs of Divine wisdom in the constitution of our nature,—the fact, namely, that while much is left to depend on the experience, intelligence, and will of man as he advances in years, and much also on the care of his parents in early youth, most of the *vital functions* are entirely independent of his voluntary efforts, and are provided for by mechanical, chemical, or instinctive laws. Did we not receive into our lungs the vital air but by an effort of the will, or until we had discovered the relation between breathing and the support of life, we should expire as soon as we were born; but we breathe mechanically and involuntarily, the lungs being so adapted to the atmosphere in which we are placed, and so provided with all means both of communication and defence, as to dilate and contract of their own accord under its influence. Did the circulation of the blood depend either on our knowledge or volition, it would instantly cease; but the heart acts mechanically, under the operation of stable laws, and it acts incessantly through life, without interruption and without pause. Did the digestion of our food depend either on our intelligence or will, we should be speedily reduced to a state

of inanition ; but the stomach, the liver, and bowels, all act under laws, partly mechanical, partly chemical, and partly vital, so as to secure the assimilation of our food without any effort of our own. Did the regular supply of food depend on man's prudence alone, it might be neglected, to the serious danger of his life ; but the instinctive cravings of hunger and thirst, and the equally instinctive pleasure which is associated with the gratification of these appetites, constitute a wise and salutary provision for a very necessary and important end.

The instincts which belong to human nature present a most interesting topic of inquiry. They come into play before reason ; and they continue to act along with it, except in those cases in which reason supersedes their use, and then they cease. " In the infancy of the individual," says Mr Stewart, " his existence is preserved by instincts which disappear afterwards when they are no longer necessary. In the savage state of our species, there are instincts which seem to form a part of the human constitution, and of which no traces remain in those periods of society in which their use is superseded by a more enlarged experience."*—" We come into this world," says Dr Reid, " ignorant of every thing, and by our ignorance exposed to many dangers and many mistakes. The regular train of causes and effects which Divine wisdom has established, and which directs every step of our conduct in advanced life, is unknown until it is gradually discovered by experience. . . . If we suppose an infant endowed with reason, it would direct him to do nothing, till he knew what could be done with safety. This he can only know by experiment, and experiments are dangerous. . . . The child, inapprehensive of danger, is led by *instinct* to exert all his active powers,—to try

* DUGALD STEWART, "Elements," I. 273.

every thing without the cautious admonitions of reason, and to believe every thing that is told him. So that the wisdom and goodness of the Author of nature is no less conspicuous in withholding the exercise of reason at this period, than in bestowing it when we are ripe for it.”*

2. The next example under this class is *the variety and the mutual adaptation of our intellectual powers*. We refer, in the first instance, to the relation of our mental faculties to one another, or the nice adjustment of these internal forces in one individual mind. They are so closely related and inter-dependent, that if we wanted any one of them, the rest would be either inactive, or at least comparatively useless. The *external senses* are the first inlets of knowledge: through these, as through so many natural channels, we receive our earliest impressions from the world which surrounds us, and not until some intimation reaches us from thence can any one faculty of the inner man be stirred up into activity. The mind is like a complicated instrument, composed of many wheels connected with each other by several chains: it is all wound up and ready to be set agoing,—but not one movement is made till it receives an impulse from without. That impulse is conveyed through the medium of the senses. Were these inlets altogether closed, the mind must for ever remain inactive and unconscious: not that our knowledge is wholly derived, as Condillac and his followers asserted, from the senses, still less that “all our ideas are merely sensations transformed;” † for, besides the senses, we have the faculty of consciousness and reflection, which disclose to us the phenomena of another world than that of material nature; and the very “transformation,” of which Condillac speaks, must be

* DE REID, “Essays,” I. 236.

M. CONDILLAC, “Traité de Sensations,” *passim*.

ascribed to a law or power inherent in the constitution of the mind itself. Sensation is the *occasion* rather than the *cause* of thought,—it furnishes the materials on which our own mental activities are employed ; but no sooner does the infant inhale the vital air, or open his eye on the light, or derive an impression through the extended sense of touch, than the curious mechanism within is set agoing;—the Mind is brought into activity, is *conscious* of its own operations, and can *reflect* upon them, and thus a new kind of knowledge is acquired, a knowledge of the Intellectual and Moral truths which reflection on its own experience immediately supplies. But this is *occasioned*, in the first instance, by an external impulse,—a sensation produced by some object from without ; and we are thus called to contemplate and admire the wonderful adaptation whereby the material world is made to act, through the mechanism of the bodily organs, on the human Mind,—an adaptation not the less real, nor the less wonderful, that the process by which the effect is wrought eludes the search of the most inquisitive observer. By the senses we acquire *immediately*, without reasoning, and without protracted investigation, all that knowledge of the external world which is necessary for life,—while the more recondite secrets of nature are left to be discovered by the exercise of our rational powers.*

As soon as the external senses have performed their office, *Memory* takes up the materials of knowledge, and lays them past as a stock for future reflection and use. It *preserves* them, often unconsciously ; and is capable of *recalling* them at pleasure. There are several facts respecting this most useful faculty which deserve special notice, as illustrative of the wisdom with which it has been adapted to the end that was to be served by it.

* DR REID, "Essays," I. 283, 295.

We are not so constituted as to remember every thing alike. There are many insignificant objects and events which could be of no use to us were they recorded on the tablet of our memories; and there are several distinct laws by which this faculty is adjusted to the purposes of practical utility. Every thing which is regarded as peculiarly interesting and important, or which powerfully excites our feelings, is more distinctly and more permanently remembered than other things: and yet, we have also a direct, voluntary power over our *attention*, in virtue of which we can, by exercising it on any object, impress it deeply on our remembrance. The reason is obvious. A truth may be really important, which is not particularly interesting to our feelings: but by this arrangement we are *constrained* to remember some things, and *enabled* to remember others, while many more are left to fall into oblivion. There is still another law by which every act of memory is associated with a *firm belief* in the past occurrence to which it relates. This belief is spontaneous, certain, and irresistible; insomuch that no sane man ever dreams of doubting the clear testimony of his memory to any matter of fact. On this belief every man acts, and the whole business of the world is conducted on the credit of it. Yet it is a belief for which no *logical* reason can be assigned: it is the immediate and inevitable offspring of the constitution of our nature.

But Sensation and Memory alone could not have fitted man for his high and peculiar destination; he is, therefore, endowed with various faculties of a nobler kind. He is gifted with a faculty of *comparison*, which enables him to discern the resemblance and diversity of different objects,—with a faculty of *abstraction*, which enables him to consider every part, or quality, or relation of these objects, apart by itself,—with a faculty of *generalisation*,

which enables him to rise from particular facts to general laws,—with a faculty of *judgment*, which enables him to pronounce definitively on certain truths relating both to the co-existence and succession of phenomena,—with a faculty of *reasoning*, which enables him to deduce one truth from another,—with a faculty of *imagination*, which enables him to reproduce and represent the objects of his past experience, and which qualifies him for the arts of poetry and painting. It is not our intention, nor is it necessary for our purpose, to offer an exhaustive catalogue, still less a rigorous analysis, of the mental faculties : it is enough merely to indicate their variety, and their mutual adaptation to one another, for ends that are alike obvious and useful.

3. In considering the structure of the human Mind, we may discover another example of the wisdom with which it has been framed, in *the provision which has been made for stimulating and aiding the exercise of our various faculties*. This provision is exemplified in—the natural principle of *curiosity*,—the power of *habit*,—and the law of *association*.

Curiosity commences in our earliest years, and is the first impellent to mental activity. It has a direct reference to things which are yet unknown, and it is powerfully stimulated by novelty. The attention is thus arrested, and the mind, almost unconscious of its own labour, delights in the prosecution of new discoveries. “Can any thing,” says Lord Brougham, “be more perfectly contrived as an instrument of instruction, and an instrument precisely adapted to the want of knowledge, by being more powerful in proportion to our ignorance?”* The *love of truth* is a higher principle which comes into play at a more advanced stage, and which partakes more of the character of a moral virtue.

* LORD BROUGHAM, “Discourse,” p. 66.

The power of Habit exhibits the same wonderful adaptation to the mental improvement of mankind. It is provided that by the mere repetition of an act, we acquire, *first*, a greater facility in performing it, and, *secondly*, a stronger inclination to do so; insomuch that what was at first difficult becomes easy, and what was disagreeable or dangerous becomes safe and pleasant. The familiar instances of a child learning to articulate and to walk, or of an artist trying his yet unpractised hand on the pallet and canvass, or musical instrument, afford a striking contrast to the easy and firm step of the adult pedestrian,—the fluency and force of the accomplished orator,—the finished execution of the practised musician,—and the apparently intuitive, but really acquired, skill of artistic genius. The difference is the result of Habit. It might have been otherwise. The same difficulty which we encountered at our first essay might have been renewed at every successive repetition of it: and this would have proved an insuperable bar to our progress,—it would have deprived us of all the stimulus and encouragement which arise from a sense of difficulties surmounted, and success achieved.

The law of Association, by which one object or idea suggests another having some relation to it, whether in point of time and place, or of resemblance and diversity, constitutes another part of the provision which has been made for stimulating and aiding the exercise of our intellectual powers. The beneficial influence of this law can scarcely be over-rated,—it may be said to govern the whole process of thought. Let any mind be withdrawn from its control, and all its faculties would act incoherently. “Without the *associating* principle, the power of retaining our thoughts, and of recognising them when they occur to us, would have been of little use: for

the most important articles of our knowledge might have remained latent in the mind, even when those occasions presented themselves to which they are immediately applicable. But in consequence of this law of our nature, when an occasion occurs which calls for the aid of our past experience, *the occasion itself* recalls to us all the information on the subject which that experience has accumulated.”*

4. The *emotions*, *affections*, and *passions*, considered as constituent principles of the same mind, exhibit similar evidence of design in the general structure of its powers. They stand related to one another,—to our instincts,—to our intellectual powers,—and to various external objects ; and they are so balanced and adjusted as manifestly to subserve many useful ends. The annexation of pleasure and pain to certain sensations and feelings is, of itself, a proof of the wisdom with which our constitution is framed, and it forms one of the chief provisions for the Divine government of the world. A sense of pleasure is associated with every natural exercise of our powers on their appropriate objects : a sense of pain is induced by their misdirection or their excessive activity. What would man be without emotion, without affection, or without desire ? Even his very passions are useful, when they are kept under due restraint.† *Anger* is a sort of defensive armour furnished for self-preservation : *fear* responds to it, and produces caution and courtesy : *hope* looks onward to a distant future, and thence derives motives and encouragements to exertion. Strip man of any one of these powers, and you derange the balance of his faculties,—you deprive him of that which is necessary to some of the highest ends of life.

* DUGALD STEWART, “Elements,” I. 353.

† MR COGAN, “On the Passions.”

5. There is a remarkable adaptation between the *mental faculties* within, and the constitution of *external nature*. We advert, in the first instance, to the co-existence of two distinct and independent arrangements, on which the whole superstructure of Science is based : the existence, on the one hand, of *genera* and *species* in nature,—and the existence, on the other, of a law or faculty in the human mind, by which it is enabled and prompted to classify them. Our senses take cognisance only of individual objects ; and were we left to their sole guidance, our discovery would be slow, and must be limited within the range of our particular observations. But when we observe several objects, we are led to compare them with one another, to mark both their resemblance and their difference,—and to arrange them accordingly. In this respect the human mind is *adapted* to the actual constitution of external nature ; for there all things are ranked under *genera* and *species*, and the whole work of Natural Science consists in classifying them. “ The life of man, if an hundred times longer than it is, would be insufficient to learn from experience the useful and hurtful qualities of every individual production of nature, taken singly. The Author of nature hath made provision for our attaining that knowledge of His works which is necessary for our subsistence and preservation, partly by *the constitution of the productions of nature*, and partly by *the constitution of the human mind*. For, first, in the productions of nature, great numbers of individuals are made so like to one another, both in their obvious and in their more occult qualities, that we are not only enabled, but invited, as it were, to reduce them into classes, and to give a general name to a class. . . . And, secondly, the human mind is so framed that, from the agreement of individuals in the more obvious qualities, by which we

reduce them into one class, we are naturally led to expect they will be found to agree also in their more latent qualities.”*

6. There is a similar, but yet a distinct and independent, adaptation between *the mental faculties* and *the succession of natural events*. We have already seen that provision is made for the science of *contemporaneous nature*, by the arrangement of all natural objects in genera and species, and the corresponding mental law by which we are prompted as well as enabled to compare and to classify them: we now add that a similar, yet distinct, provision is made for the science of *successive nature*, by the orderly succession of events in the natural world, and the corresponding mental law which leads us to count on its constancy. We are led, from our earliest infancy, to reckon on the uniformity of nature, and to expect the same effects from the same causes in invariable succession. Experience could not teach us the lesson: it shows only what *is* or *has been*, but not what *shall be*. Yet the most untutored savage forms his expectations and plans on an instinctive persuasion that the future will resemble the past. He believes, and acts on the belief, that the sun will rise to-morrow,—that the tide will ebb and flow,—that the seasons will revolve in their appointed times,—and that all Nature will maintain its ordinary sequences. If you ask a reason for this persuasion, you can obtain no other answer, either from the peasant or the philosopher, than that such is the spontaneous and irresistible conviction of his mind. He anticipates what will be the course of nature; and this anticipation must be resolved into a primary and fundamental law of thought,—the basis alike of all scientific speculation and of all practical enterprise.

* DR REID, “Essays,” II. 110.

This law of human belief is adapted to the actual course of nature in *ordinary* circumstances; while it is not necessarily exclusive of extraordinary or miraculous interposition,—since, in such a case, there is *a new antecedent*,—the will of an intelligent, free, and powerful Agent, which is abundantly sufficient to account for the effect. The ordinary course of nature corresponds with the anticipation which we are thus naturally led to form; every successive day, and week, and month verifies it;—our expectations are not disappointed but fulfilled; for nature *does*, in ordinary circumstances, maintain that regularity and constancy which a law of our mental constitution determines us to reckon on. And yet the two things are quite distinct and independent: the anticipation does not govern the fact, but the fact corresponds with, confirms, and verifies the anticipation.

7. There is a remarkable adaptation between our *mental faculties and the two great classes of truths,—the contingent and the necessary.* In the case already mentioned,—that of our confidence in the constancy of nature,—the mental law has reference to a *contingent* truth, and therefore it awakens an anticipation, without affording dogmatic certainty. It gives an assurance strong enough for all practical purposes, without excluding the possibility of a different result, through the operation of other than natural causes. Its language is—not this *must* be, but this *will* be, unless the existing order of nature shall be changed by a higher Power. In this respect it differs entirely from the law which regulates our belief in *necessary or demonstrative* truth. The latter excludes all opposite possibilities: it imparts absolute and unwavering certainty; its language is, this *must* be, and *cannot* be otherwise. This would not be true in regard to any contingent event: the established

order of nature may possibly be interrupted, in particular cases, by *miracle*, or it may be wholly superseded by the introduction of a new order of things. But by the constitution of our minds we are qualified to attain to the knowledge of some *necessary* truths, the reverse of which we pronounce to be *impossible*. To this class belong the axioms and theorems of Mathematics, and, generally, the truths that are included in the science of magnitude and number. These truths are elaborated in the pure Intellect. No doubt, there is “a certain rudimentary experience,” which gives us our first conception of a number,—of a line,—of a circle,—and of a square ; but, these elementary conceptions being once acquired, the Mind might thereafter construct its own Mathematics without any further intercourse with the external world. It would not be from a want of sufficient powers, but from a want of sufficient stimulus to their exertion, if it did not, in its own unaided strength, climb the steep ascent of pure Science.

The necessary truths are discerned by the Intellect acting, according to its own fundamental laws, on the simplest ideas acquired from experience. And yet, when the Science which is thus elaborated in the inner man is brought out and *applied* to the external world, it is found to correspond with it at all points, and to furnish the means of measuring the size and distances both of terrestrial and celestial bodies ! The stately fabric of pure Geometry, constructed by the human intellect, is found to be *adapted* to the sublime fabric of Creation, constructed by a higher wisdom. The propositions of Geometry are purely ideal and hypothetical ; but they coincide with fact, and may sometimes be illustrated by actual superposition. The coincidence between the computations of the Astronomer in his solitary study,

and the return of a comet or the occurrence of an eclipse, is a marvellous proof of the adaptation between the faculties of our minds, and the laws and processes of material nature. There is no necessary connection between the physical phenomena and the mathematical laws; but the same wisdom which constituted the Universe according to the rules of Geometry has imparted to the mind of man faculties which enable him to construct a Geometry which shall explain the phenomena both of the earth and the heavens.

8. Another remarkable adaptation subsists between *the dictates of natural Conscience, and the good or evil consequences of our conduct*. The existence of Conscience, or of a moral faculty which intuitively discerns the difference betwixt right and wrong, is here assumed; and it is applied merely to prove that its dictates are in entire accordance with the consequences of our actions. That the phenomena of Conscience afford a direct and comprehensive testimony to the being and attributes of God, has been proved in a previous Chapter;—at present we point merely to the remarkable adjustment which subsists between two things so distinct and independent, as are the *moral perceptions* of the mind, and the *train of events* which follow after our actions, and which afford an experimental verification of the lessons of Conscience. There is a law written on the tablets of the heart, by which every man is made to feel that “he is a law to himself;” and there is a judge within the breast, which pronounces its sentence long before the consequences of our actions have been fully developed, and while as yet these actions are only the objects of an incipient conception, or a secret purpose. The moral faculty takes cognisance of the nature and springs of our actions, and has nothing to do with their consequences, at least in

the first instance ; it pronounces fraud to be base, however lucrative may be its gains, and it brands falsehood with foul dishonour, however it may pass for a time with apparent impunity. Now these primitive and intuitive principles of Morals are found to correspond at all points with *universal practical utility*. So far as we can trace the consequences of our actions, we find that those which Conscience prescribes and approves serve to promote the welfare both of individuals and of society ; while the opposite conduct, which Conscience prohibits and condemns, is incompatible with the real interests of both.

This is a remarkable coincidence : and it is so certain and palpable, that some have attempted to make *utility* the standard, or even the very essence, of virtue. But all the labours of modern Utilitarians only serve to demonstrate the truth of *one* part of our doctrine, while they leave the other untouched. They are utterly powerless to efface those intuitive perceptions which, like so many finger-posts, point the way either to happiness or misery. It may be justly affirmed, that never is man more certain of promoting his real welfare, than when, lifting his eye above consequences altogether, he looks simply to the law of duty, and consents to forego a present indulgence, or even to endure a temporary evil, rather than forsake the guidance of that inward monitor, which speaks to him, not of interest, but of obedience, yet by the path of obedience leads him onwards to the noblest and most enduring happiness ; whereas, “if, without the guidance of any internal monitor, he were left to infer the duties incumbent on him from a calculation and comparison of remote effects, we may venture to affirm that there would not be enough of virtue left in the world to hold society together.” *

* D. STEWART, “Elements,” II. 505.

9. Another remarkable adaptation subsists between *the Will and the other faculties, as well as the corporeal organs* which are the instruments of its activity. We are so familiar with the phenomena of volition, that we seldom reflect on the mysteries which they involve. The will is dependent both on our sentient and intellectual powers for the *motives* by which it is swayed. It acts on the external world, but only through the medium of our corporeal organs; and the marvellous adjustment between these organs and the living, active, immaterial principle, affords a manifest proof of *design*. Nor is that proof impaired by our inability to explain the *mode* in which the will moves the members of the body; its strength lies in the *fact*, and the manifold practical uses which are served by it.

10. The last example under this class is the adaptation which subsists between *external objects and our natural sense of beauty*. That some appearances are naturally more pleasing than others, and that much of the pleasure which we feel in contemplating the works of creation arises from our sense of beauty, will be universally admitted. The structure of the world, and of innumerable individual objects in it, is adapted to man's sense of taste, as well as to his corporeal wants. It might have been otherwise. Instead of the verdant grass and foliage with which the earth is adorned, and which soothe and gratify the eye of every spectator, the objects of nature might have been arrayed in sable or in glaring colours: and no one can fully estimate the difference which this one circumstance would have caused in all our sensations and feelings. The flowers, which are scattered in rich profusion over its surface, bespeak the kindness as well as the wisdom of its Maker. "Consider the lilies—Solomon in all his glory was not arrayed like one of these!"

It has been remarked that, when natural objects are subjected to close microscopic inspection, their beauty becomes only the more perceptible; for the Microscope discloses the perfection of Nature, and the imperfection of Art. "Whatever is natural," says Bishop Wilkins, "beheld through the Microscope, appears exquisitely formed and adorned with all imaginable elegance and beauty. There are such inimitable gildings in the smallest seeds of plants, but especially in the parts of animals,—in the head or eye of a small fly,—such accuracy, order, and symmetry in the frame of the most minute creatures, as no man were able to conceive without seeing of them. Whereas the most curious works of Art—the sharpest and finest needle doth appear as a blunt rough bar of iron, coming from the furnace or the forge; the most accurate engravings or embossments seem such rude, bungling, and deformed work as if they had been done with a mattock or trowel: so vast a difference is there between the skill of Nature, and the rudeness of Art."

The continual preservation and reproduction of the same *beautiful patterns* in natural objects, shows with what care provision has been made for adorning the earth and adapting it to the sense of Taste. Every flower or blossom might furnish an example, but we select as a specimen *the peacock's feather*. "In its embryo," says Dr M'Culloch, "it is little more than a bladder containing a fluid, while every one knows the general structure of those long ones which form the train. The star is painted on a great number of small feathers, associated in a regular plane,—as those have found their way from the root, through the long space of three feet, without error of arrangement or pattern, in more millions of feathers than imagination can conceive. If this is suffi-

ciently wonderful, the examination of each fibre of the canvass (to adopt this phrase) will much increase the wonder. Taking one half of the star, the places and proportions of the several colours differ in each of those, as do their lengths and obliquities; yet a single picture is produced, including ten outlines, which form also many irregular, yet unvarying curves. And further, the opposed half corresponds in every thing,—while this complicated picture is not painted after the texture is formed, but each fibre takes its place, ready painted, yet never failing to produce the pattern.”*

§ 11. The *eleventh* class consists of examples of—Social Adaptations.

Nothing can be more self-evident than that we are fitted for social life, and dependent on intercourse with one another for our improvement and happiness.

This being the general statement of a fact attested by universal experience, there are several special adjustments of a social nature which deserve notice, as affording a striking illustration of *design* in the constitution of our species.

1. There is a *social instinct*,—a tendency or a necessity, —which urges us to confederate with our fellow-men. The instinctive tendency, and the inevitable necessity, for social intercourse, should be distinctly marked, as correlated but independent considerations. Man is born into the world in a state of entire helplessness and dependence; and throughout every stage of life, he requires the aid of his fellow-men. He was obviously *designed* to be, not an isolated individual, but a member of society; and his instinctive feelings, as well as his external circumstances, are *adapted* to this design. The end is so

* DR MC'ULLOCH, “Proofs and Illustrations,” I. 81.

important, that it is not left to depend on the taste or caprice of individuals; it is secured by means of a provision which is, in a great measure, independent of their will. They naturally yearn for social intercourse; and they are so situated that they cannot avoid it.

2. Provision is made for *mutual communication between mind and mind*. We can conceive of our state being very different in this respect from what it actually is. We can conceive of myriads of minds existing in the same world, without having the capacity of discovering one another's existence, or holding any intelligent communication or affectionate intercourse. In such a case, each mind would have been pent up within the narrow precincts of its own thoughts, and left to depend exclusively on its own resources. To minds so situated, many of the powers and affections with which our common nature is endowed would have been superfluous, and, had they been bestowed, must have remained inactive: and the mere existence of these powers in man indicates, what is abundantly verified by actual experience, that he is framed and fitted for social life and intelligent converse.

We are qualified, in the first instance, to *discover the existence of other minds around us*: and this we do intuitively, or almost intuitively, by means of certain *signs or tokens* which we are enabled to interpret. We cannot *see* another mind: but we see the external signs and manifestations of intelligence; and we are constrained, by the constitution of our nature, to ascribe it to a living and active principle. Dr Reid was of opinion that this belief must be ascribed to a *first principle*, or fundamental law of thought, since we derive the conviction of the existence of other intelligent beings, neither from the senses, nor from any process of reasoning that can be stated in words. It is one of the child's earliest discoveries. "As soon as children

are capable of answering a question, or of asking a question,—as soon as they show the signs of love, of resentment, or of any other affection,—they must be convinced that those with whom they have this intercourse are intelligent beings. Now I would ask,—How a child of a year old comes by this conviction? Not by reasoning, surely; for children do not reason at that age. Nor is it by the external senses; for life and intelligence are not objects of the external senses. Other minds we perceive only through *the medium of material objects on which their signatures are impressed*. It is through this medium that we perceive life, activity, wisdom, and every moral and intellectual quality in other beings. The *signs* of these qualities are immediately perceived by the senses: by them the qualities themselves are reflected to our understanding.”

It will afterwards appear, that this principle has an important application to the general argument from *marks of design* in the works of nature: meanwhile we found upon it as affording a distinct proof of the wisdom with which we have been framed: and surely no proof could be stronger than that which arises from the beautiful and beneficent provision whereby different minds are enabled to discern each other, and to enjoy mutual converse.

3. *The method of communication* between mind and mind, by means of *language, natural and artificial*, affords an additional proof. There are two kinds of language, or systems of signs. Natural language consists of such signs as are observed in the expression of the face, or the sound of the voice, or the gestures of the body; for mind and body are so adapted to one another that any violent emotion in the former finds instant expression in the latter. We are all familiar

with these *signs*: we know the aspect of grief, and the look of affection; we can discriminate the sounds of sorrow or fear from the notes of joy and gladness; in the erect or drooping attitude, we discern the energy of firm resolve, or the weakness of helpless despair: and if to these we add the simplest conventional signs, such as are used by the deaf and dumb, or such as appear in rude hieroglyphics, we have an invention which may be said to stand midway between natural and artificial language.

The latter consists also of signs,—not representative or pictorial, but purely arbitrary and conventional,—which are made by common consent to stand for certain ideas or objects, and which are instantly recognised by all to whom the language is known. All language, then, whether natural or artificial, depends on the use of *signs*; these signs are the outward exponents or indices of thought and emotion; and whether they appear in the glance of an eye,—or in the falling of a tear,—or in the curl of a lip,—or in the gesture of a limb,—or in the articulate sounds of a practised and well-trained tongue,—or in the form of written or printed discourse,—they are the sensible media through which intercourse is maintained between mind and mind.

It has been made a question, whether Language was slowly elaborated by mere human invention, or whether it was communicated, at the origin of our race, by direct inspiration? The discussion of the question does not belong to our present subject: it may be enough to say, that a natural ground-work exists for social converse in those spontaneous signs which are seen and intuitively understood by all; signs which presuppose no compact or convention, but which are at once exhibited and explained in the mere light of nature. By the wonderful

adjustment which has been established between the feelings of the mind and the expression of the body, on the one hand, and by the additional adjustment, on the other, which exists between the natural signs of thought or emotion and the perceptive intelligence of every observer, a provision is made for disclosing to us, through their visible effects, the operation of powers and principles which are themselves invisible; and this is the ultimate foundation of all intercourse between mind and mind.* Converse by means of oral or written speech, whether natural or supernatural in its origin, is adapted to the wants, and eminently conducive to the welfare and improvement of mankind.

4. When we compare different minds with one another, we discern *a general uniformity combined with a great diversity of endowment*, such as is admirably fitted to subserve many important ends in social life. There is as much uniformity as is necessary for intelligent converse and mutual sympathy: there is as much diversity as is necessary to fit men for different stations and varied pursuits. As "face answereth to face," so doth mind to mind. A diversity of feature affords the means of personal recognition, and facilitates the intercourse and business of life; while the general uniformity of structure is the distinctive mark of the species. The same mental powers,—the same laws of thought,—the same instincts, affections, and desires, are common to all men; and yet they are bestowed in such different degrees, and they come into action in such different circumstances, that they are adapted to all the exigencies of social life. To the *common* part of our nature the reasoner addresses himself, when he seeks to convince the judgment of others; and the orator, when he endeavours to animate

* DR REID, "Essays," II. 255, III. 185, 435.

his audience with the same sentiments which glow within his own bosom ; and the politician, when he frames his schemes of government, and imposes the restraints of law. To this extent, there is a natural principle which leads us to reckon on mental uniformity. That principle is confirmed and verified by experience, but does not seem to be derived from it. It is a provision suited to the circumstances in which we are placed, and highly conducive to the safety and improvement both of individuals and of society ; insomuch that the whole business of life would speedily go into derangement were there either *no uniformity of mental laws or no diversity of mental gifts*.

5. A beautiful example of *social* adaptation and arrangement is exhibited in the Domestic Institute, or *the division of mankind into families*.* In the case of the angels, who “neither marry nor are given in marriage,” and who come into being by an immediate act of individual creation, there must have been a very different provision : but in the case of man, who comes into the world as a helpless infant, and is for years dependent on parental care, Marriage and the Family Institute form the great natural provision for his preservation and well-being. The abrogation of Marriage, or the extinction of Families, would be the virtual destruction of Society. It would arrest the progress of civilization, and undermine the foundations of government and social order. It would be the prelude to anarchy and barbarism. It is in the domestic circle, and by means of domestic influences, that the human infant is first trained in the exercise of his powers ; the family is a school for education and discipline ; *there* it is that he first learns submission and obedience to a superior will,—and there it

* REV. CHRISTOPHER ANDERSON, “The Domestic Constitution.”

is that he acquires the knowledge, the sympathies, and the habits, which are necessary to qualify him for social life. It is a school,—but not one of harshness or severity. The parental, filial, and fraternal affections are all elicited, and serve to sweeten and endear the relations of domestic life. No revolution could be more disastrous or fatal to the highest interests of Society, than that which should invade the sacred precincts of the Family; for this is God's own ordinance for the primary education of the world,—it is His beneficent provision for some of the highest ends of social life.

6. Besides the domestic relations and affections, there is another provision which leads men, for their own benefit, *to associate in communities or nations, and to submit to regular government and laws.* We shall not inquire into the origin of such social unions, nor discuss the questions which have been raised respecting it: it is enough for our present purpose to state the fact, that everywhere throughout the world some form or other of government has been established, and that, on the whole, it is conducive to the welfare of mankind. Evils there are, doubtless, under every form of government, in the fallen state of human nature; but those who have eulogised savage life have been sadly oblivious of the blessings of society; and a single year of anarchy would serve to teach them the inestimable worth of government and law. Despotism itself is preferable to the ascendancy of a lawless Democracy.

7. Society is so wisely constituted as to *subserve, in some measure, the ends of a moral government.* A system of moral government implies a *moral nature* in the subjects of it, and appropriate sanctions of reward and punishment. There may be a *real* government which is not *moral*; a natural or secular government, such as is

exercised over the material universe by means of general laws, or over the lower animals by means of their distinctive properties and peculiar instincts. But in the case of man, there is a government properly *moral*, since he possesses a moral nature, and the order of Society is *adapted* to the ends of *such* a government.

We may find a sufficient proof of this in *the restraints* which are imposed upon us by our *social relations* as members of the community to which we belong. These restraints are universal. They may be stronger or weaker in different countries, or at different times, in proportion to the higher or lower tone of the prevailing morality; but in no age, and in no clime, is their influence unfelt. They depend, not so much on the prevalence of virtue, as on the existence of conscience, in every breast around us; a conscience which, however blind to one's own sins, is seldom either blind or tolerant to the sins of others. Hence every man, even the most wicked and abandoned, is compelled to feel that he lives in a moral atmosphere,—that, as a member of the community, he is exposed to pains and penalties, and these often of the severest kind, arising not from the remorse of his own conscience, but from the rebuke or reprobation of his fellow-men; and that his success in life, as well as his personal comfort, depends on his being, or at least seeming to be, virtuous. If hypocrisy be, as La Rochefoucauld said it was, “the homage which vice pays to virtue,” it affords one of the strongest proofs that Society is framed on a moral principle, and fitted for the ends of a moral government.

The *social evils* which result from the general prevalence of vice in any community afford an additional proof of the same kind.—In the case of a *family*, consisting of parents, and children, and servants, all alike unprincipled,—following no law, but yielding to the unbridled sway of

their own appetites and passions, and owning no authority higher than their own will,—what prospect can there be of that sweetest of all temporal enjoyments,—domestic peace? A cruel, tyrannical, and profligate father,—a dissipated, careless, and abandoned mother,—sons reckless and haughty,—daughters undutiful and immodest,—servants deceitful and dishonest,—constitute a family, if family it may still be called, in which there is neither reverence, nor affection, nor sympathy, nor trust; and in which one of the most blessed ordinances of God is converted by vice into a withering curse.—In the case of a nation, the same effects are exhibited on a larger scale. Suppose the Apostle's fearful description to be realised in any country under heaven,—suppose that men were to become universally, or even generally, “lovers of their own selves, covetous, boasters, proud, blasphemers, disobedient to parents, unthankful, unholy, without natural affection, truce-breakers, false accusers, incontinent, fierce, despisers of those that are good, traitors, heady, high-minded, lovers of pleasure more than lovers of God;”^{*} should we not then feel that, in very deed, “perilous times had come,” and that vice, unrestrained, has power to convert the fairest earthly paradise into a scene of social wretchedness and desolation?

8. On examining the structure of society, especially in the light of its history, we can, I think, discover, amidst all the fluctuations and vicissitudes which appear to disturb its course, *some wise provisions for the progressive improvement of the species*. The theory of Social Progress, which has too often been monopolised as well as perverted by Infidelity, is perfectly consistent, when correctly understood, both with an enlightened Theism, and with the Christian faith. The melancholy decay and downfall

^{*} 2 Timothy iii. 2.

of ancient civilization, and the manifold proofs of degeneracy and degradation which occur, even in its recent annals, forbid us to cherish visionary hopes or utopian dreams of ultimate perfection, as the result of the unaided light of nature; but there is evidence, on the whole, of an onward tendency on the part of the race at large, however its older branches may have fallen into decay. There is a beautiful analogy between the progress of an individual mind, through manifold difficulties, errors, and disappointments, to that knowledge and virtue which such discipline secures, and the progress of the race at large, through similar stages of experience, to a higher and better state. "The discoveries," says Mr Stewart, "which in one age were confined to the studious and enlightened few, become, in the next, the established creed of the learned, and, in the third, form part of the elementary principles of education."

Knowledge is slowly elaborated, but, once acquired, it becomes the heritage of the race. The Arts also are in a state of progress, and the science of Government is being slowly matured.* Whether moral degeneracy might not now, as under the ancient civilization, keep pace with intellectual, artistic, and political progress, and ultimately bring back the barbarism which science had partially expelled, is a question which might be sorrowfully entertained, were we not relieved by the assurance that a clearer light than that of nature has been given for the future guidance of our race,—a light which irradiates Time, while it reveals Eternity.

9. The strength of the proof arising from Social Adaptations is often not appreciated, or not felt as it ought

* D. STEWART, "Elements," I. 221, 362, 565.

MR DOVE, "Theory of Human Progression."

M. COMTE, "Sociologie,"—"Cours" VI.

to be, by reason of the evils and inequalities which exist in the present state of society. For this reason we now add, that *these very evils and inequalities* may only afford, when duly considered, an additional proof of the consummate wisdom with which Society has been constituted so as to subserve important moral ends in a state of discipline and probation. Our state may be imperfect, and yet may be suited to some grand design. Were man a perfectly innocent and holy being, his social condition must have been, even from natural causes, widely different from what it now is; and there would have been no necessity for that hard and long-continued labour which Scripture declares to have been imposed in consequence of sin. But the leisure and the ease which might have been safely enjoyed in a state of innocence would have been dangerous or destructive in his present state,—and hence the burden of daily toil, which is properly regarded as a part of the primæval curse, when viewed in its relation to a prior and better state, is really converted into a blessing, or at least a means of averting greater evil, when it is applied to a state of sin and misery, under a scheme of grace. What would a perpetual holiday be, in the actual condition of our race, but a carnival of unbridled license? Death itself, sad as it is, is overruled as a means of good. What would this world be, were men, depraved as they now are, exempted from the prospect of dissolution, and assured of an immortal existence on earth? What moral instruction would benefit, or what form of government restrain, them? The very evils of life, therefore, may be admirably adapted to our condition, as fallen, but immortal creatures. We should ever remember that the whole plan of Providence may not yet have been fully developed,—that it is a scheme which has only been partially unfolded, and which is still less

perfectly understood,—and that many arrangements, which now seem dark and mysterious, may hereafter be found to bear the impress of the same omniscient wisdom, so conspicuous in every part of His works which we are able to comprehend.*

10. The wisdom of the *social* arrangements of Providence may be still further illustrated by the fact, that *most of our social evils have arisen from the neglect or violation of some natural law*. The transgression of the Moral law is the grand ultimate cause of all suffering; but the neglect of physical or organic laws is also injurious to society. The law of population, as expounded by Malthus, establishes a natural disproportion between the multiplication of the species, and the fecundity of *the immediate locality* in which they live: they are continually out-running the means of subsistence; and are thus compelled either to abstain from marriage under the influence of prudential reasons, or to leave their native haunts in quest of food elsewhere. This law is admirably adapted to one grand design of Providence,—that of replenishing and subduing the earth. But when it is disregarded by the people or by politicians,—when the former, already suffering from want, form improvident alliances, and the latter afford no facilities for emigration,—what can be expected to ensue but a wide-spread moral and social degradation? By another natural law, man must eat his bread by the sweat of his brow, and his subsistence as well as comfort is left to depend on his own industry. This law, also, is admirably adapted to man in his present state; but when this law is disregarded and set aside,—when a legal right to support is secured to able-bodied men, irrespective of

* BISHOP BUTLER, "Analogy," part i. c. vi.

DR M'COSH, "The Divine Government," p. 266.

their own labour,—when no distinction is made between cases in which supply has no tendency to increase the demand, such as those of the blind, the insane, the deaf and dumb, and other cases in which the demand is stimulated, and improvidence encouraged, by the certainty of obtaining relief,—what can be expected to ensue but the utter decay of a spirit of independence, and a neglect of the dearest claims of domestic duty? By another natural law, property may be acquired, and may be transmitted from sire to son, under the protection of civil government: but by a similar law, the continued enjoyment of it is left to depend on the prudence and good conduct of its possessor or heir:—And when human law interposes, so as to counteract this natural arrangement,—when it withdraws landed property, for instance, from the disposal of a parent, and exempts it from all liability for the debts of its owner,—is it wonderful if the systematic violation of a great providential law should sooner or later be followed by social evils of a formidable kind? These are only a few specimens of the natural laws by which Society ought to be governed, and there is much truth in the statement that—“Human wisdom is in its highest exercise, when it is observing the superiority of Divine wisdom, and following its method of procedure.” *

We have thus exhibited a variety of Examples, illustrative of the wisdom which is displayed in the various departments of nature. They might have been multiplied indefinitely; but this could have served no good purpose, since the proof is as conclusive from a hundred, as it could be from a thousand, instances. We have endeavoured to arrange and classify them under distinct heads,

* DR M'COSH, “The Divine Government,” p. 258.

so as to give due prominence to certain fundamental relations. If any one can review these examples, and yet continue to deny or doubt the truth of the conclusion in support of which they have been adduced, his scepticism must arise, not from any want of *visible order* in nature, but from some distrust of the *mental process* by which the conclusion is reached; and it must relate, not to the facts contained in the *premises*, but to the logical principle which is involved in the *inference*.

We have purposely abstained from the discussion of that principle in connection with the statement of these facts. We reserve it for special and separate consideration at a later stage; and we have been induced to do so, partly by the obvious inconvenience of mixing up a statement of facts with a speculative discussion of the mere metaphysics of the proof,—and still more by the assured conviction that the laws of thought, on which that proof depends, are in constant, although, it may be, almost unconscious, operation in every breast; and that the facts themselves, if only distinctly apprehended and thoroughly realised, will make their own impression, without any reasoning of ours, on every reflecting mind.

CHAPTER VI.

VESTIGES OF THE HISTORIC FACT OF CREATION.

“VESTIGES of the Natural History of Creation,”—such is the title of a very popular, if not very profound, work, which has recently attracted a large share of public attention. Let the reader ponder the import of these terms, and endeavour to attach a distinct and definite meaning to them. What are we to understand, first of all, by “*Creation?*” Is it the mere *formation, moulding, or fashioning*, of matter already existing? or is it the far higher work of *calling that into being* which had absolutely no existence before? In the former sense, there might be a *natural history* of Creation, just as there may be a natural history of the growth of a tree, the building of a ship, the erection of a house, or the digging of a canal: for *Nature* is supposed to exist, and we inquire merely into the development of its powers, and the various forms in which its extant materials are successively presented. But this, besides being an unusual, if not improper, sense of the term *Creation*, has no bearing at all on the grand ultimate inquiry respecting *the origin of Nature*. It may, or it may not, be true, that there has been a gradual evolution of new forms,—a successive series of new orders of terrestrial and aquatic beings,—nay, of new worlds, and new systems, in the celestial sphere: it may, or it may

not, be true, that these new products have been developed from pre-existing materials by the action of natural causes, under the direction of established laws ; but the question remains,—whence these primordial materials, and these normal forces? Did they exist eternally, or were they *created*, in the strict sense of the term, as having been *called into being* by an omnipotent Will? In this sense, there can evidently be no *Natural History of Creation*. For what, let us ask, in the second place, is Natural History? Is it not a History of Nature? And how could Nature have a history, while as yet it is supposed to have no existence? In this sense, at least, the Creation of the world must be, not a *natural*, but a *supernatural* event,—a product of omniscient wisdom and almighty power. In a word, define the two principal terms which occur in the Title of this popular work, so as to form a distinct and definite idea of their precise import, and it will be found either that they are used in an unwonted, if not unwarrantable, sense, or that they involve a manifest contradiction.

The Author of the “*Vestiges*” seems to have been, to some extent, aware that his theory was utterly insufficient to account for the *Creation* of the world, in the strict and proper sense of the term. Partly to avoid the imputation of Atheism, to which some of his speculations might too probably expose him, and partly to explain and define the limits of his proposed inquiry, he repeats over and over again, that the doctrine of development by the operation of natural laws does not supersede the necessity of having recourse to an Intelligent First Cause, and that it is not intended to be applied so as to exclude a prior act of *Creation*, properly so called. “What,” says he, “does a Law imply? It is an arrangement in which we see invariable uniformity and self-consistency. In the

case of physical laws, we can bring it to mathematical elements, and see that *numbers*, in the expression of space or of time, form, as it were, its basis. We thus trace in Law, Intelligence: often we can see that it has a beneficial object, still more strongly speaking of Mind as concerned in it. There cannot, however, be an *inherent intelligence* in these laws; we cannot conceive of Mind actually working in the agglomeration of a dew-drop, or the orbital revolution of the moon. The Intelligence appears *external to the Laws*; something of which the laws are but as the expression of the Will and Power. If this be admitted, the Laws cannot be regarded as primary or independent causes of the phenomena of the physical world. We come, in short, to *a Being beyond Nature*,—its Author, its God; infinite,—inconceivable, it may be, and yet One whom these very laws present to us with attributes showing that our nature is in some way a faint and far-cast shadow of His; while all the gentlest and beautifullest of our emotions lead us to believe that we are as children in His care, and as vessels in His hand. We must consequently understand,—and this is for the reader's special attention,—that when we speak of Natural Law, we only speak of the *mode* in which the Divine power is exercised. It is but another phrase for the action of the ever-present and sustaining God.” *

After these admissions, the theory of Development by natural law might be adopted, without seriously affecting the Theistic argument, could Development be established as a *fact*, on the basis of Historic proof or Philosophical induction: but Science, not less than Scripture, compels us to reject it. We are prepared, however, to advance a step further, and to show that there are *Vestiges of the Historical Fact of Creation*, such as cannot be accounted

* “Vestiges of the Natural History of Creation,” pp. 9, 10.

for on any known principle of Natural History, but must be ascribed to the interposition of Creative wisdom and power.

In the strict sense of the terms, we have no *experience of Creation*, or of the direct and immediate production of beings without the use of natural means, and apart from the operation of natural laws. But we have abundant evidence of such beings having been produced, at a comparatively recent period, in circumstances which constrain us to have recourse to the immediate agency of God, as the only cause that can satisfactorily account for them: and if His interposition be established at the commencement of the existing order of Nature, a Supernatural Power is recognised, which will equally account for the primary creation of matter itself, and for any other miracle which may have been wrought in the whole course of the world's history.

What, then, are the Vestiges of the Historical Fact of Creation? That judicious and justly celebrated Lord Chief Justice, Sir Matthew Hale,—who was not less profoundly versed in Theology than in Jurisprudence,—has discussed this question with admirable sagacity in his treatise on “The Primitive Origination of Mankind;”—a treatise which leaves little to be added in the way of argument, excepting only those facts which the more recent discoveries of Geology have enabled us to ascertain. It is a striking proof of the discrimination and foresight of that truly venerable man, that he founded his argument mainly on *the origin of races or tribes of organised beings*,—and in doing so, anticipated what is now universally felt to be by far the strongest proof of the non-eternity of the existing order of nature. This we conceive to be the line of argument which is most advisable still; *first*, to prove the comparatively recent

origin of the vegetable and animal races, but more particularly of Man; and *thereafter*, to show that this fact, if once established, is sufficient to demonstrate the interposition of Divine wisdom and power, while it affords also, in conjunction with certain other considerations, a strong presumption in favour of the original creation of Matter itself. Referring to his profound, but somewhat prolix, work for a fuller detail of the various proofs, we shall merely offer an epitome of those considerations which appear to us to be the most cogent and conclusive.

It is one of the clearest and most undoubted results of modern Geological research, that both the *Flora* and the *Fauna* now existing on the earth are of comparatively recent origin. It is not necessary, in connection with our present argument, to determine the precise *date* of their production: we found on the *fact*, that they came into being at a period, whether more or less remote, before which the crust of the earth exhibits no vestiges of their existence. Nor is it necessary for us, with a view to the only conclusion which we are now concerned to maintain, to launch out into speculation respecting the antecedent state of our globe, or the successive changes which it may have undergone: it is enough if we can establish the fact, that the existing races were not eternal, but came into being, and began to be invested with all their marvellous properties and powers, at an era which may be, more or less definitely, determined by a sure natural evidence.

The fact of the comparatively recent origin of the existing organisms is not denied by the Author of the "Vestiges,"—on the contrary, it is everywhere assumed and often affirmed by him, as, indeed, it is necessarily presupposed in his whole theory. He abandons, therefore, the doctrine of the *ancient* Atheists, who maintained

an eternal succession of the same races which still exist; and is consequently bound to show that the production of new races may be satisfactorily accounted for, without any direct or immediate interposition of Divine power. This he attempts to do by means of the theory of natural Development; a theory which is utterly destitute both of experimental and historical proof, and directly opposed to the well-known law which insures the perpetuity of distinct *genera* and *species*. The advocates of Theism admit the fact of the recent origin of these races, but they reject the theory which this writer has adopted respecting the mode of their production. They know of no law for the transmutation of species, and of no solitary instance in which such a transformation has ever occurred. They see in the marvellous forms of vegetable and animal organisms,—in the symmetry and use of their various parts,—in their mutual adaptation to one another,—in their external relations to other objects,—and in their common subserviency to important practical ends,—irresistible evidence of wise design; and they ascribe their production, in the absence of any known natural cause, to the interposition of Him who is “wonderful in counsel, and excellent in working.”

This conclusion is sanctioned not only by men of ardent, but unenlightened, piety; it is also adopted and affirmed, as the only legitimate result of rigorous *scientific research*, by not a few of the most profound Geologists of the age. “Geology,” says Professor Sedgwick, “like every other science, when well interpreted, lends its aid to Natural Religion. It tells us, out of its own records, that Man has been but a few years a dweller on the earth; for the traces of himself and of his works are confined to the last monuments of its history. Independently of every written testimony, we therefore prove, by

natural evidence, that man, with all his powers and appetencies, his marvellous structure and his fitness for the world around him, was called into being within a few thousand years of the days in which we live,—not by a transmutation of species (a theory no better than a phrensied dream), but by a provident contriving Power. And thus we at once remove a stumbling-block, thrown in our way by those who would rid themselves of a Prescient First Cause, by trying to resolve all phenomena into a succession of constant material actions, ascending into an eternity of past time.”*

“Could we but demonstrate,” says Dr Chalmers, “a commencement for these organic mechanisms, then the argument rises to almost the force of infinity for a God. And it seems impossible to escape from the belief of such a commencement, whatever opinion we may entertain as to the authority of the professed historical vouchers for the fact of a creation. . . . Our argument is complete, if in these (Geological) theories, there be the palpable proofs of a commencement to the *present order of things*. The most essential stepping-stone of this argument is a doctrine that has become the almost universal creed of Naturalists,—that there is no *spontaneous generation*, at least in reference to the vast majority of known species; to which we superadd the equally admitted doctrine,—that there is no *transmutation of species*.”†

“The perished tribes and races,” says Mr Miller, “all *began* to exist. There is no truth which Science can more conclusively demonstrate than that they had all a *beginning*. The infidel who, in this late age of the world, would attempt falling back on the fiction of an ‘infinite

* PROFESSOR SEDGWICK, “Discourse,” Fifth Edition, p. 27.

† DR CHALMERS, “Natural Theology,” I. 244, 262.

series' would be laughed to scorn. They all *began to be*. But how? No true Geologist holds by the Development hypothesis,—it has been resigned to sciolists and smatterers,—and there is but one other alternative. They began to be *through the Miracle of Creation*. From the evidence furnished by these rocks, we are shut down either to the belief in *miracle*, or to the belief in something else infinitely harder of reception, and as thoroughly unsupported by testimony, as it is contrary to experience." *

"My next example from Geology," says President Hitchcock, "to disprove the notion of *an eternal series* of animals and plants on the globe, is derived from the history of organic remains. That history shows us clearly, that the earth since its creation has been the seat of several distinct economies of life, each occupying long periods, and successively passing away. During each of these periods, distinct groups of animals and plants have occupied the earth, the air, and the waters. Each successive group has been entirely distinct from that which preceded it, although each group was exactly adapted to the existing state of the climate and the food provided; so that, had the different groups changed places with one another, they must have perished, because their constitutions were adapted only to the state of things during the period in which they actually lived. These facts being admitted, who does not see the necessity of Divine interference,—when one race of animals and plants passed from the earth,—in order to repeople it?" †

"The study of Geology," says Dr Whewell, "opens to us the spectacle of many groups of species which have, in the course of the earth's history, succeeded each

* MR HUGH MILLER, "Footprints," p. 277.

† DR HITCHCOCK, "Religion of Geology," p. 144.

other at vast intervals of time; one set of animals and plants disappearing, as it would seem, from the face of our planet, and others, which did not before exist, becoming the only occupants of the globe. And the dilemma then presents itself to us anew,—either we must accept the doctrine of the *transmutation of species*, and must suppose that the organised species of one geological epoch were transmuted into those of another by some long-continued agency of natural causes,—or else, we must believe in many successive acts of creation and extinction of species, out of the common course of nature,—acts which, therefore, we may properly call *miraculous*. Geology is silent. The mystery of Creation is not within the range of her legitimate territory:—she says nothing, *but she points upwards*.”*

A peculiar interest attaches to the history of the Human Race, and there is ample evidence of its comparatively recent origin. We have already seen, that some of the strongest proofs of the being, perfections, and government of God are supplied by the complex constitution of human nature, and especially by the Intellectual and Moral powers with which it is endowed. Any historical indication, therefore, which bears on the origin of Man, is entitled to great weight, in connection with our general argument.

Various indications of this kind will immediately suggest themselves to every reflecting mind. *First*, the range of authentic human history is circumscribed within very narrow limits. This fact is certain, whatever difference of opinion may exist as to the precise date of man's origin. It is not seriously affected by the fabulous antiquity which has been claimed by some of the Oriental nations; for that antiquity is as nothing when compared

* DR WHEWELL, “Indications of the Creator,” pp. 62, 71.

with the supposed eternity of the race. Apart from Revelation, we have no authentic history extending beyond the last *three* or *four* thousand years: and the total absence of any prior records or monuments is a strong proof of the recent origin of mankind. For is it possible, on the supposition of an *eternal* succession of human beings, to account for the non-existence of any historical document relating to the myriads of generations which must have successively peopled the earth? If it be ascribed to a series of catastrophes, burying in oblivion the records and monuments of antecedent ages, but still leaving a remnant of surviving men to perpetuate the species,—is the occurrence of such catastrophes attested by any kind of evidence, or is it in accordance with the analogy of our experience during the historic ages? If it be ascribed, again, to the recent origin of the Arts, and the incapacity of mankind to record their experience in early times,—is not this only another fact that requires to be accounted for, and one which may possibly afford a fresh proof of the non-eternity of the species? For, *secondly*, the origin and progress both of Science and Art, in so far as they are known to us, are in perfect accordance with the supposition of a limited duration (*a parté ante*) to the human race, but are utterly unaccountable on the theory of its eternal existence. Many of the most signal discoveries of Science, and not a few of the most valuable inventions of Art, are confessedly of very recent origin; and the progress of the human mind in both departments can be historically traced for a few thousand years,—it has been steadily, if not, till of late, rapidly advancing, and this, as it seems to be the law of the development of human thought, is also the brightest omen of future improvement. But on the supposition of the *eternal* existence of man on the earth, what account

could be given of the rate of his past progress, or what hope could be entertained of his future prospects? His improvement is perceptible, when it is measured on the scale of time, but what is it on the scale of eternity?

Thirdly, the law which regulates the increase of population affords a strong argument, when viewed in connection with the actual numbers of our race. For on the supposition of its eternal existence, it is demonstrable that, in spite of all known checks, whether physical or prudential, the earth would long ere now have been over-peopled, instead of being, as it still is, only partially inhabited. And, *finally*, the universal tradition of mankind, incorporated into almost every system of Religious or Philosophical belief, affords a confirmatory proof that the Human Race had a beginning at an era not very remote.

In the present advanced state of Science, few, if any, would venture to affirm, as Ocellus Lucanus and others of the ancients did, that the human species and all the vegetable and animal races have existed from all eternity as they now are. But some may not have duly considered that, in a question of this kind, there are only *two possible alternatives*: either, these races, constituted as they now are, had a beginning, or they had not; they must have been either self-existent and eternal, or a new product at some definite era in the course of time. One or other of these alternatives must be adopted,—they cannot be both true, nor can they be combined in any system of thought, for they are mutually exclusive. Our opponents, uncertain which to choose, or unwilling to be shut up to a peremptory and final decision, are often found to oscillate between the two, and to take refuge indifferently in either, according to the exigencies of their argument. But an honest and serious inquirer after

truth will feel that he is shut up to the necessity of deciding in favour of the one or the other. If he shall decide in favour of the idea that the world, as now constituted and peopled, has existed from all eternity, he must grapple with the formidable objections to that theory arising both from Geology and History: if, on the contrary, he shall adopt the other alternative, and admit that the existing races had a beginning,—that the human species, in particular, has not always existed on the earth,—then he must account for the origin of *such* a product; and if he cannot do so by means of any known natural law, he will be constrained to ascribe it to the interposition of an Omniscient and Almighty Creator.

In a recent work,—“*ESSAYS*,” by the Rev. Baden Powell of Oxford,—an attempt is made to invalidate the grounds of that confidence which many Theists repose in the conclusions deduced from such *Vestiges* of the recent commencement of vegetable and animal tribes. The appearance of such a work, from such a quarter, may well be regarded as an ominous “sign of the times.” It proceeds from the pen of a distinguished divine of the Church of England, holding an influential position in one of our national Universities;—and it contains an elaborate argument directed to vindicate and establish—not the scientific details—but “the broad philosophical principles” of the “*Vestiges*,” as well as to discredit and subvert the ordinarily received doctrine respecting the Creation of the world. The comparatively recent origin of the existing races is not denied; but it is conceived that it may be satisfactorily accounted for, at least to a large extent, by a natural law of evolution or development. His exposition differs, in some respects, from the more common form of the theory; but it involves the

same radical principles, and rests on the same ultimate grounds.

It is thus stated,—“If we admit that the earth, being still hot internally, must have cooled at its surface, and that this cooling must, in its progress, have caused contortions, dislocations, upheavals of strata; and again, that the waters charged with matter must have deposited it; and that the various crystallised bodies and metallic veins must have been formed during certain stages of these formations,—it is only by parity of reason affirmed that the rudiments of all organic as well as inorganic products and structures must have been evolved in like manner, as they were alike included and contained in the once fused, and therefore once vaporised, or nebulous, mass. In that mass all kinds of physical agents, or the elements of them, thermotic, electric, chemical, molecular, gravitational, luminiferous, and by consequence not less all organic and vital forces, must have been included. Out of it in some way, by equally regular laws in the one case as in the other, must have been evolved all forms of inorganic and equally of organic existence,—whether amorphous masses, crystals, cells, monads, plants, zoophytes, animals, or man,—the *animal* man; the *spiritual* man belonging to *another order* of things, a *spiritual creation*.” To make the latter part of this statement more clearly intelligible, as well as to do full justice to what is peculiar,—perhaps original,—in the Author’s modification of the common theory, it may be necessary to add his remarks explanatory of the distinction here indicated between man as an *animal*, and man as a *spiritual and moral being*. “The most difficult, and at the same time the most important, question in any theory of this kind, has been raised on the ground of its relation to *the nature of MAN*. It will, however, hardly

be denied that man, *considered in his animal nature alone*, is very little superior to brutes, and in some respects inferior. In the scale of *mere animal organization*, the difference between the lowest human form and the highest monkey is not greater than between one class of monkey and another. Whatever difference of opinion may have arisen on this subject of a moral and metaphysical kind, yet it is on all hands allowed that man has, *to a certain extent*, a nature in common with brutes; and we may *avoid all cavil* if we simply assert that man, *in so far* as he partakes in a nature common to brutes, is along with them, *in that respect*, a part of the same scale and system of organised life. *In so far* as his animal nature, functions, and instincts are concerned, they are linked in the same chain of continuity with the order of other material existences. . . . The question of an intellectual principle is of a peculiarly *metaphysical* kind, and in no way affects the continuity of man's *physical nature* with the rest of the material order of things. But the more important question refers to the further assertion of a distinct *moral and spiritual nature* or principle existing in man, and all the higher relations consequent upon it, which place the nature of man *in this respect* in a category altogether different from that of inferior animals. Now, on this most important point I would only observe one thing in reference to our present subject: the assertion in its very nature and essence refers wholly to a DIFFERENT ORDER OF THINGS, apart from, and transcending, any material ideas whatever; hence *it cannot be affected by any considerations or conclusions belonging to the laws of matter or nature*. In a word, man's nature and existence on earth is in nothing of a *peculiar* kind, and in no way violates the *essential unity and continuity* of natural causes;—in regard to man's *animal*

nature, because, *so far as that extends*, it wholly belongs to the physical order of things ;—in regard to man's *spiritual* nature, because, so far as that is concerned, it is wholly independent of all material things, and is therefore relieved from all possibility of connection, or collision, with any physical truths or theories." *

On comparing this peculiar modification with the more ordinary form of the theory, it will be observed that Professor Powell draws a marked distinction,—not so much between Man and the rest of Nature, as between Man *the animal*, and Man *the moral and spiritual being* ; and that while, in the former aspect, he is held to rank under physical nature, and to be subject to the law of physical development,—in the latter, he is supposed to belong to a different order of things, and to be exempt from the operation of that law.—The author *seems*,—(for in the absence of a more explicit statement of his views upon the subject, we must not speak dogmatically as to his meaning), but he *seems* to admit *a moral and spiritual creation*, distinct from and independent of,—but neither contained in, nor provided for, and, perhaps, subsequent to,—*the physical Creation*.—For not only does he draw the distinction as above stated, but in another Essay, he speaks of “an *extinct and lower species* of man,” whose remains may possibly yet be found ;—and tells us that “the only real distinction in the history of creation is not the first introduction of the *animal man* in however high a state of organization, but the endowment of that animal with the gift of a moral and spiritual nature ;” that “it is a perfectly conceivable idea that a lower species of the human race might have existed destitute of this endowment ;” and that “the peculiar spiritual nature which was given to him,—expressly

* REV. BADEN POWELL, “Essays,” p. 77.

described as “breathed into him” by a special act, and generally conceived by divines to have constituted “the image of God in which he was made,”—can “in no way be affected by what may have been his animal nature or origin *prior to that spiritual creation.*” * If this be a correct account of his theory, it suggests several considerations which may be applied as tests of its consistency and truth.

It will be observed, first of all, that it differs widely from the ordinary doctrine of development, which accounts for *every thing in nature* by ascribing its origin to a law of natural evolution, and rejects all idea of *immediate creation*, excepting, perhaps, in the case of the original Nebular vapour or fire-mist,—inasmuch as it recognises a distinct and independent creation, subsequent to the physical;—*a spiritual creation* which cannot be accounted for by any known natural cause, and which can only be ascribed, so far as we can judge, to the direct interposition of Divine power.—In this respect it is inferior, both in point of unity and of comprehensiveness, to that wider and more uniform generalization, which reduces under one comprehensive law *all* the varieties of natural phenomena, and excludes *any* repetition of the primitive act of creation.—The fact of a fresh spiritual creation, additional and subsequent to the physical, is utterly inconsistent with the idea which has sometimes been maintained, that the supposition of immediate Divine interposition at any point, or for any object, in the course of time, is either derogatory to the wisdom of God, or inconsistent with the immutability of His counsels.—Limited as it is to the *moral and spiritual nature of man*, it is still sufficient, if it be a fact, to show that God may create different orders of being *in succes-*

* “Essays,” pp. 465, 467.

sion, and *otherwise* than by the operation of any law of natural development. And if this truth be involved or implied in the modified form of the theory, with what consistency can it be said to exclude successive creations, or to preserve,—better than the doctrine to which it is opposed,—the continuity of Nature unbroken, and the uniformity of her laws inviolate? The fact of *one* creation, subsequent to the original constitution of nature, and effected otherwise than by a law of physical development, shows that there are *other* methods of production, and that *all* the phenomena of nature cannot be accounted for by ascribing them to the *same* law.

We are warranted, therefore, to entertain the further question whether, if man's *moral and spiritual nature*, as belonging to "a different order of things," cannot be accounted for by a law of physical development, it may not be equally true that the origin of *life and intelligence*, even such as is common to man with other animals, cannot be satisfactorily explained without supposing the same kind of interposition which is confessedly indispensable with regard to the higher and more peculiar part of his nature?—If spiritual and moral consciousness must be the result of a spiritual creation, is it self-evident that the *intellectual* consciousness which belongs to man may be accounted for by a mere *physical* law? It is not enough to say that "the question of an intellectual principle is of a peculiarly *metaphysical* kind, and in no way affects the continuity of man's *physical nature* with the rest of the material order of things." Nor is it enough to say that "to what extent mind and volition, especially in their lower functions, in *man* are different from the corresponding manifestations in inferior animals is a very important question in psychology,"—and that "to draw the line may be difficult or impracticable."

Does this intellectual consciousness,—whether it be such as is *peculiar* to man, or such as is *common* to him with other animals,—belong to mere physical nature, and can it be accounted for by mere physical laws? That it belongs to *nature*, when that term is employed in a comprehensive sense to denote all the objects and phenomena which are presented to our observation, may be true; but does it belong to *nature*, when that term is used in a restricted sense, as if it were convertible with that of *matter*? Of the *moral and spiritual* nature of man, it is alleged that it belongs “to a category altogether different from that of inferior animals,” and that “hence it cannot be affected by any considerations or conclusions belonging to the laws of *matter* or *nature*.” Now, the *intellectual consciousness* of man is either the same with that of inferior animals, or it is in some respects different from it,—so different in kind or in degree, as to be a fit mate for the moral and spiritual nature with which he alone is endowed;—but whether it be considered as *common* or *peculiar*, can it be ascribed to a mere *material* law? and if not, may there not be here the same occasion for speaking of “a different order of things,” and of “a creation” effected otherwise than by the law of material development, as in the case of man’s *moral and spiritual* nature?—It would be a *second* instance, no doubt, but *one* has been already admitted, of departure from the *uniformity* of mere physical development;—and if one has occurred, the spell is broken,—the *prestige* of absolute uniformity is gone.

But passing from what is *peculiar* to man, whether as an intelligent, moral, or spiritual being, and looking only to what is *common* to all living organised beings,—a *third* question arises,—whether the origin of new races can be

satisfactorily accounted for by any known law of physical development? The reverend and learned author has no difficulty in avowing his belief that it *may*, or even that it *must*, be ascribed to some such law, although he does not venture to affirm that it is a *known* law. He declares his conviction that, with the exception already mentioned, all the existing races of living organised beings *may* have been developed out of previous races, now perhaps extinct; and that the whole series may have been developed ultimately out of inorganic elements.* He affirms that the *analogy* of nature is favourable to the theory of development, and that the *uniformity* of nature requires its adoption by every truly inductive mind.—His mode of reasoning on the subject strikes us as affording in itself a curious *specimen* of development,—the development of *may be* into *must be*. It begins with an apologetic defence of the Nebular hypothesis as “a legitimate *conjecture*” and an argument to show that “there is no evidence to prove the hypothesis *inadmissible*”—no evidence, except such as is merely negative, to prove it untrue;—but it ends in conclusions which could not be more dogmatically stated, nor more oracularly announced, had “the legitimate conjecture” been a demonstrated truth of science. The contrast between the language in which he propounds and defends the theory, and the strong terms in which he announces his conclusions respecting it, must strike every reader. We are told, on the one hand, “It is no part of the present object to assert or to defend the nebular theory, except on the general ground that it is a perfectly *legitimate* ground of *conjecture*.” “The nebular theory of the solar system, soberly understood, is a philosophical conception worthy of the subject which it illustrates,”—“the existing system

* Pp. 422, 436.

may have been developed according to regular and uniform laws; and, which is so far a rational and consistent *conjecture* (*for it can be no more*), eminently conformable to the grand principle of cosmical unity and order.”* We are told, on the other hand, that “the invariable relation of all the successive forms to one primitive type, constitutes the legitimate and *undeniable* evidence of some regular order of causes, presiding over their production, operating through periods of time of enormous length, during which old species have slowly disappeared by the action of natural causes, and new allied species have as gradually appeared, *beyond all doubt*, as much in accordance with other equally natural, even if at present *unknown*, laws—parts of the great order of causes, in conformity with which these and *all possible* physical events *must* have taken place.” “If we admit that the earth, being still hot internally, *must* have cooled at its surface, and that this cooling *must*, in its progress, have caused contortions, &c.; and again that the waters charged with matter *must* have deposited it; and that the various crystallised bodies and metallic veins *must* have been formed during certain stages of these formations,—it is only by parity of reason affirmed that the rudiments of all organic as well as inorganic products and structures *must* have been evolved in like manner, as they were alike included and contained in the once fused, and therefore once vaporised, or nebulous, mass. In that mass *all* kinds of physical agents, or the elements of them, . . . and by consequence not less *all* organic and vital forces, *must* have been included.” How marvellously the *may be* has been transformed into a *must be*!

The argument will have no weight with those—and they are not a few—who hold that there is *no evidence*

* Pp. 206, 207, 425, 77.

either of a universal Fire-mist at the commencement, or of a transmutation of species in the course, of the present order of things :—who believe in the uniformity of laws under the established constitution of nature, but without excluding the possibility of creation otherwise than by the action of these laws,—and who deny that either the moral and spiritual nature of Man, or the origin of life and intelligence, can be satisfactorily accounted for by ascribing them to a process of mere material development. They may admit that the theory of Development is not *necessarily* Atheistic, both because it may be combined with the doctrine of a primæval creation, and also because, on the supposition of a progressive evolution of one race from another, there might still be strong evidence of pervading *design* : but if it be further urged, either that the *same* laws which regulate the present course of Nature must have presided at its commencement, or that God cannot act *otherwise* than by Natural laws, they will withhold their assent until these assumptions are proved. They have *no experience* of the development or transmutation of species ;—they are even assured that such an event, however real, must be so rare that it cannot be expected to occur within the limited range of their observation, and that even if it did occur, it might not be recognised or known as such, on account of their ignorance.* On the other hand, they *have* evidence, so far as their experience extends, of a permanent distinction of species, as immutable as any other law with which they are acquainted ;—and that *natural evidence*, sufficient in itself, is confirmed by the concurrent attestation of Scripture, which recognises the fixed laws of nature, and also the radical distinction of species.

* Pp. 419, 420.

CHAPTER VII.

THE COMPLEMENT AND SUM OF THE PROOF.

IN the preceding Chapters, we have endeavoured to prove;—

—That, from the mere fact of existence at the present time, we are irresistibly led, by the laws of our mental constitution, to believe in self-existent and eternal Being; a belief which is common to the Theist, the Atheist, and the Pantheist, and which includes all that is most mysterious and incomprehensible in the first truths of Religion:

—That, from the existence of Mind at the present time, we infer the eternal existence of Mind, or of a Cause capable of producing Mind,—and thus rise from our own conscious existence, as intelligent, spiritual, and active beings, to the conception and belief of a Power widely different from any mere physical or material cause:

—That, from the law of Conscience, and the facts of our Moral experience, we are constrained to feel that we are subject to a system of Government, not self-originated or self-imposed, but independent of our will, and inseparable from the very constitution of our nature itself; which leads us to identify our Creator with our Lawgiver, Governor, and Judge:

—That, from the phenomena of Nature, including

both the material and mental worlds, we are led to connect its origin with the supremacy of Mind, or the action of a living and intelligent Cause; since it exhibits, in innumerable adaptations and adjustments, manifest indications of wise *design*, as if it were a mere instrument, fashioned and applied on purpose to accomplish important practical *ends* by fit and appropriate means:

—That, from the facts of History, whether attested by written records or geological monuments, we are warranted to believe in the comparatively recent origin of the existing tribes of organised beings, and especially of the Human Race,—a fact which effectually disproves the eternity of the world, as now constituted, and affords also a strong presumption that the same Power by which the present order of things was established must be Omnipotent, as well as Omniscient, and capable, therefore, of giving its being and its properties to Matter itself.

Such is the outline of our general Proof. If we combine the lessons, derived from these various sources, in one comprehensive view, we shall have the substance of an effective argument for the being and perfections of God. We are far from saying that these lessons exhaust the subject, or that they include every thing that might be advanced in proof or illustration of the truth. But they afford, if not a complete, yet a sufficient and satisfactory evidence. They may be *supplemented* by a variety of considerations, which have appeared to some minds to possess so much importance that they have not hesitated, in some instances, to found on them alone. The idea, for instance, of an *absolutely perfect Being*, which every mind is capable of forming, and of which every mind is conscious, however little it may reflect on its important bearing on the Theistic argument, was urged by Anselm and Descartes in former times, and has been

occasionally referred to since, as a sufficient proof of His existence. The notion, again, of a self-existent, necessary, and eternal Being, which is forced upon us by the existence of any thing at the present time, was founded on by Dr Samuel Clarke as the groundwork of his Argument *a priori*; and whether it be possible or not to arrive, by means of that *sole* argument, at a satisfactory proof, it is perfectly legitimate, as Dr Waterland has shown, to reason *deductively* from any one truth, previously established, to other truths, which may be contained or involved in it. The fact, again, that all our fundamental laws of thought, and all our noblest conceptions, seem to point towards, and to centre in, One absolute and all-perfect Being,—the principle of *causality*, the perception of *design*, the sense of *the true*, *the beautiful*, and *the good*, which raise us, as it were, instinctively to the contemplation of One in whom the highest Power and Wisdom are combined with perfect Truth, Beauty, and Goodness,—has been adduced and applied with much effect, by some continental writers, as a strong auxiliary argument.—There is surely something in the fact, that without a Supreme Mind, there could be no Eternal or Unchangeable standard either of Truth, or of Morals, or of Taste, or of Happiness, anywhere in the universe. All created minds are finite and fallible; the uncreated Mind alone is omniscient and unerring. Self-existent and self-conscious, “He is the Father of lights, and in Him is no darkness at all:”—the Sun of the Moral World, whose efflux emanates throughout the Universe, and enlightens every created spirit. His knowledge is intuitive and infinite. All created things have their archetypes in the ideas of the Divine Mind. His nature, too, is unchangeable,—“He is the same yesterday, and to-day, and for ever,”—with Him “there is no variableness neither sha-

dow of turning." In His eternal Being and Omniscience, I find an unchangeable standard of Truth,—in His essential nature and holy character, an everlasting standard of rectitude and goodness,—in His transcendent loveliness and moral beauty, an invariable standard of sentiment and taste,—in His essential blessedness, a standard of the highest happiness. True, I have no direct intuition of God: I can only rise to the contemplation of His perfections under the guidance of the light which is reflected from His works: but having that light to guide me, and following it up to its sempiternal Source, is it nothing for the weary but earnest seeker, to find a goal in which he can securely rest,—to descry, far above the tumultuous waves of human thought and passion, a serene and unchanging Light,—a Mind, an Intelligence, a living personal God,—whose knowledge is perfect Truth,—whose will is absolute Rectitude,—whose name and whose nature is Love!—

These and many other considerations might afford scope for instructive and interesting inquiries: but contenting ourselves with a brief indication of them, we shall only further attempt to concentrate our previous proof, and to specify the distinct truths which it is fitted to establish.

Our argument has been directed to prove the being and perfections of God, as the Creator and Governor of the world. In illustrating the natural evidence, we have selected as our principal medium of proof, those indications in nature which bespeak the *wisdom* and *power* of its great Author. But these are not the only perfections which are manifested in His Works. From the law of Conscience, and the phenomena of the Moral world, He is made known, not only as the Creator, but also as the Lawgiver, Governor, and Judge of all: and it is by combining all these intimations that we rise to the highest

conception which we can form of a living, spiritual, personal God.—The evidence both of the material and moral world proves that He is *good*, as well as *wise* and *powerful*: for all the manifold adaptations of nature are evidently designed to promote the welfare and happiness of His creatures; while the Moral law,—the law of the Universe,—is *love*: showing emphatically the truth of the apostolic statement, “God is love.”—A similar evidence shows that He is *holy*, *true*, and *just*: for these Attributes are implied in His law, and in the whole scheme of His moral administration.

His Unity, as the sole self-existent and eternal Being, the one only source of life, and breath, and all things, may be inferred from the *Unity of Design* which pervades the whole creation, as well as from the manifest absurdity of supposing, either more than one self-existent and absolutely independent Being, or that such attributes can belong to the variable, fleeting, and temporary forms of Nature. It is from this unity of design, that we speak of the whole amplitude of Creation—as a *Universe*: and from a Universe, created, subject, and dependent, we rise to a God, self-existent and supreme. The process of thought is neither long nor difficult; the mind of any reflecting man may easily pursue it. He finds himself, as a denizen of universal Creation, connected with two vast systems,—the celestial and the terrestrial,—and even as the citizen of this lower world, he finds himself connected with two subordinate but yet important systems, the one material, the other mental,—the one sensible, the other spiritual, clearly distinguishable from each other by their respective properties, yet closely connected by indissoluble bonds. He stands related to both,—to the one, by his body and its organs, to the other, by his mind and conscience: in each he discerns order, indicating

uniform and stable laws ; but he finds in the moral world what he does not find in the material ;—he learns from his own consciousness and from converse with his fellow-men, that Mind, even the mind of a finite being like himself, has the power of fashioning matter into new forms,—of adapting it to its own *purposes*, and of applying it as a means to an *end* : he thus acquires the idea of *voluntary* as contradistinguished from mere *physical* Causation. He sees that the action of Mind on matter is widely different from the action of one material substance on another, and distinguishable from it by signs and indications, which his most familiar experience teaches him to read and interpret. He can thus discriminate at once, and with a feeling of perfect confidence, between an object which has been fabricated “by art and man’s device,” and another object existing in its crude natural state : and this he does by the presence in the one case, and the absence in the other, of certain unequivocal *signs*, which indicate the action of Mind on matter, or the operation of *intelligent design*. Thus prepared, he looks abroad over Creation, including both the terrestrial and celestial systems, and discerns everywhere the well-known characters which denote the action of Mind on matter ; and when he reflects on the amazing power as well as wisdom which the arrangement of the present order of nature displays ;—more especially, when, looking to the other great department of nature, he sees in the Moral world a co-ordinate system, exhibiting similar manifestations of *design*, and still more significant expressions of a Supreme governing Will ; when he thinks of the Law, which bespeaks a Lawgiver, who must also have been the Creator of the human soul, since that law forms a part of its very being ; and marks how the Mental is adapted to the Material system, as if the one had been formed with

express reference to the other, and each would be imperfect or useless were the other destroyed or materially changed: by such successive steps he ascends to an elevated level, whence he looks abroad over all the departments of Nature,—the Material, the Mental, and the Moral,—and sees them to be distinct, but independent, parts of *one* harmonious scheme; and thus he rises at length to the sublime conception of a Universe, luminous throughout with the light of intelligence,—the work of a designing Mind, the product of a Creative Power.

It may be said, however, that the argument, as hitherto stated, proves only the origin of the present order of things,—the commencement of the existing tribes of organised beings, and especially of the human race, and their formation out of pre-existing materials; but leaves unsolved the grand ultimate question of *creation*, strictly so called, and affords no ground, at least, for affirming the non-eternity of matter.—But the fact that God is the Maker, Preserver, and Governor of the actual Cosmos, will be found, if once established, to contain within itself an element of further progress—a light that will guide us onward to the solution of every question respecting the relation which He bears to the Universe. Let us be once convinced, on sure and satisfactory grounds, that *He is our Maker*,—that He called us into being by His power, that He sustains us in being by His providence, that we stand related to Him as His dependent and responsible creatures;—let us vividly conceive and fully realise these simple, but fundamental truths, and we shall have reached a vantage-ground from which the transition will be neither difficult nor slow to the further doctrine that He is the Creator of matter itself.—This latter doctrine may be,—and we believe it is,—necessary to complete our conception of His character as the

sole self-existent and eternal Jehovah; but it will not, surely, be pretended that we can have no knowledge of God at all, without solving, in the first instance, the question respecting the origin of matter.—We need not attempt at the outset to demonstrate its non-eternity: that may be left to follow, as a natural and self-proving consequence, from the existence of God, considered simply as the Author of the actual order of Nature. It is true, that our argument, when thus treated, is progressive, and to some it may seem to be indirect and circuitous: but a complex theme, comprehending a variety of distinct though related topics, and depending on evidence derived from several different sources, can only be satisfactorily illustrated by considering each of these topics on its own merits. A stream may be too broad to admit of our reaching the opposite bank *per saltum*; but we may still arrive at that bank by placing our foot successively on a series of firm *stepping-stones*. However necessary the doctrine of the original creation of matter may be to the full statement of the prerogatives of God, as the sole self-existent Being, yet it is mainly from the contemplation of His perfections, as displayed in the existing order of Nature, that we derive our most impressive views concerning Him,—those views of His wisdom, power, and goodness, which are felt to have the closest relation to the conscience and the heart. Let any reflecting man consider how much of his religious knowledge and feeling depends on the bare fact of the creation of matter, and how much on the actual order of nature,—and he will need no argument to convince him that, of the two, the latter should be studied first.—

We are far, however, from wishing to supersede the former, or to evade the peculiar difficulties which it may seem to involve. We mean merely that it should be

studied in the light of that evidence which springs from the obvious adaptations of Nature,—the *order* and *design* that are apparent in every part of its structure. The latter will be found to afford great and important facilities for the solution of the question. For if it can be proved by valid natural evidence, that the constitution of things as they now exist, and especially the various tribes of organised beings, were not eternal but had a beginning: if it can be further proved by the same evidence, that they exhibit innumerable adaptations and adjustments, such as cannot be accounted for otherwise than by ascribing them to the wisdom and power of an intelligent and voluntary Agent, then just in proportion as we are impressed by that evidence shall we be prepared to yield a ready and withal a rational assent to the original creation of matter itself. Can it fail to occur to any thoughtful inquirer, that the same evidence which evinces the interposition of an infinitely wise and powerful Being in framing the present order of things, is sufficient also to show that His power is competent to any work that is not impossible to omnipotence, and that if He constituted the present Cosmos, He may have equally created the materials out of which it was formed? Does not the evidence which proves the existence of a Being so perfect as the Former of this world must be, prompt us to form a conception of Him that is exclusive of all defect or limitation, such as would be implied in the eternal co-existence of matter independently of his will? Does not his existence alone afford an adequate cause of the Universe,—and what necessity is there for supposing the existence of any other necessary and eternal being? The elementary matter (*materia prima*) of the universe is held by some to have been eternal, mainly because they find it difficult to form any conception of its origin; but

what is there in its constitution, so far as it is known to us, that should make it an exception? It must either have been from the beginning destitute of all definite properties, or possessed of some properties which it still retains. On the former supposition, it is a perfect *non-descript*, and we should have as much difficulty in saying *what it was*, as in attempting to conceive *whence it came*; especially if it be true, as some affirm, that “for any thing we know to the contrary, all the solid matter in the solar system may be contained within a nutshell:” * on the latter supposition, there is much force in the pregnant remark of Sir John Herschell, that the modern discoveries of Chemistry respecting “the atomic constitution of bodies effectually destroy the idea of an eternal self-existent matter, by giving to each of its atoms the essential characters at once of a *manufactured article* and a *subordinate agent*.” It is certain that in the case of every mineral, plant, and animal, the almighty Protoplast has given a definite constitution and specific properties to all His works: and why should it be thought incredible that He imparted to every atom of matter the qualities, and laws, and forms which belong to them? Is there any thing unlikely in the supposition that the Architect of the Universe created His own materials, and called into being just such atoms as might serve the purposes to which He meant to apply them? Is it not credible that all matter had certain definite properties from the beginning, and that these properties were imparted to it, in the very act of its creation, with a view to the uses which it was designed to subserve? And is it not, at the very least, as difficult to conceive that animals and men could be formed out of these prim-

* PRIESTLEY, BOSCOVICH, MICHELL; DR BARCLAY, “Life and Organization,” pp. 89, 118, 184.

ordial elements, as that the atoms themselves might be called into being by an Omnipotent Will?

It is not enough, however, to say that this is *credible*; it is also *self-proving*. The argument from Final Causes is not exhausted,—it has only advanced to its initial stage,—when it leads us to recognise the adaptation of means to ends in the present economy of nature. Thus far it is a valid proof of formation, it may be, out of pre-existing materials: but it needs only to be pursued further to become a proof of Creation, in the highest sense of the term. The initial step is a firm stepping-stone by which we rise to a higher level, and that again affords a ground from which we may ascend to a still loftier elevation. There are, as it appears to us, *three* distinct and progressive stages in this great argument. The *first* is that by which we reach the conclusion, that in the actual constitution of nature, there is such a manifest adaptation of means to ends as bespeaks the agency of a Being of consummate wisdom and almighty power; the *second* is that by which we advance to the further inquiry, Whether not only the structure of organised beings, but the materials also of which they are framed,—the constituent elements of nature not less than its existing forms,—may not have been called into being and invested with their actual properties, with a view to the ends and uses to which we see they are made subservient? the *third*, and highest, stage is that by which, on the grounds already established, we are led to entertain the still loftier question, What is the final reason or cause of that *correlation between the faculties of man and the phenomena of Nature*, by which we are enabled, and even impelled, to discern manifestations of Mind in every department of the Universe?

Suppose, then, that we have reached the first stage;

that we see and acknowledge a manifest adaptation of means to ends in the actual constitution of nature ; is it presumptuous to entertain, or is it impossible to decide, the second question,—Whether there be any thing in the primordial elements of matter, so far as they are known to us, that bespeaks the agency of the same Wisdom and Will which fashioned them into their existing forms? When we examine the ultimate properties of matter, we find that there are some which are called *essential*, simply because they are common to matter of every kind ; and others which are called *peculiar*, as belonging only to certain specific varieties. To the former belong, *extension*, or its relation to space ; *inertia*, or its tendency to remain for ever in a state of motion or rest, unless impelled or arrested by some external cause ; *gravity*, or its constant tendency towards the fixed centre ; *impenetrability*, *divisibility*, *porosity* ;—to the latter belong the elasticity of some bodies, the chemical properties of others, and generally their specific peculiarities as distinct, or hitherto unresolved, substances in nature. So far as we know, none of these properties are *necessarily inherent* in matter. They are essentially involved, indeed, in our conception of it, as it exists, for that conception arises from our experience of its actual properties ; but we can conceive of a different constitution of things as possible. There is nothing self-contradictory in the supposition, that the law of gravity, or of chemical affinity, or of capillary attraction, might have been different from what it is,—and the properties and laws of matter, not less than the adjustments and collocations of nature, appear to be purely *arbitrary*. Matter might have been in motion or at rest. There might or there might not have been a loadstone or a magnet in the universe.—The existence and the properties of all substances may have

been determined by a Supreme Will. This is proved by the different kinds and degrees of chemical affinity, and especially the *variations* in the action of the same law, which is uniform up to a certain point, but having reached its fixed term, ceases, like Babbage's calculating machine, to exhibit the same results,—as, for instance, the law which regulates the attraction and repulsion of the particles of bodies at different temperatures, and which, as has been well said, “*repousse la nécessité et révèle le calcul.*” And what more natural than to believe that the primordial elements of nature were created by God, and endowed with their various properties, *with a view to the uses* which they really subserve? We find that they are fit and effective instruments in His hand, and that they have been applied for the accomplishment of His stupendous designs:—why should it be thought incredible that He devised His tools, and made them such as were required for the work which He had in view? It might be too narrow a view to take of His vast designs to say that “man was the end of creation” and “that every thing was made with reference to him;”* but assuredly He must have had in view the whole plan of the future Universe, and may be supposed to have given those properties and laws to matter which best fitted it to be a subordinate instrument in his hands. —We can conceive of God, indeed, as a mere Architect, framing the world out of pre-existing materials: but if these materials were supposed to have been self-existent, underived, and independent, we could give no reason for their being such as they are; whereas on the supposition of their having been created, we discern at once their peculiar fitness, and admirable adaptation, as instruments, to the work which He had in view.

* DESDOUIT, “L'Homme et la Creation,” pp. 23, 26, 75, 88, 289, 375, 417.

But even this does not exhaust the argument from Final Causes. It is far from being terminated when we have reached the conviction, that marks of consummate wisdom and skilful contrivance exist in the works of material nature; it is capable of raising us to a still higher platform, and giving us a far wider and more elevating view. The adaptation of *means to ends* in things terrestrial is one view: but the adaptation of *man's faculties to these manifestations* is an additional and a higher view, which leads us to contemplate the final cause of man's nature itself, and its marvellous correlation to the universe of being. It teaches us that man was *designed* to know God, and that God *designed* to make Himself known to man. We are thus led to regard God as our Teacher, and ourselves as disciples or scholars learning the lessons which He has been pleased to reveal, through the medium of His works. Our thoughts are elevated, far above all terrestrial and temporary things, to that glorious Being, who makes use of these things to manifest himself to us, as the primal Source of being and blessedness. We take a miserably narrow view, if we confine our thoughts to the adaptations existing in material nature: we must rise to the far loftier conception, that all these adaptations are only a *provision* for raising us to a higher and nobler happiness in the knowledge and enjoyment of God himself; for in manifesting His glorious perfections by these means, we see God making His own immense Being and Fulness the portion of His intelligent creatures, the Source of their loftiest and purest happiness. This is a higher view than that which terminates in the mere perception of terrestrial adaptations. It raises our thoughts to God Himself, as our supreme Good, and satisfying Portion. It teaches us that, being capable of knowing Him, we cannot find in any created thing an

adequate object either for our thoughts, or affections, or desires : but must, by a necessity of our very nature, raise our minds and hearts to God, if we would find an Object large as our capacities, and suited to our wants, as spiritual, moral, and responsible beings. Creation is a mirror, and nothing more ; a mirror so perfect that it reflects the image of its Maker,—nay, in its very fragments or detached portions the same image is visible : but “the things that are made are seen and temporal,”—they were created, and they may pass away : yet they serve their *end*, if, to minds such as ours, they “manifest things unseen and eternal,” and make God known as the Shechinah of the stupendous Temple of Nature,—the Author, and End, and Glory of the Universe. For then, all earthly things may vanish, but “there remains One Being, looking up to whom I am astonished and delighted,—resting on whom I begin to exist, and to glory in my existence ! ” *

* DR LOVE, “Sermons,” I. 5.

CHAPTER VIII.

APPLICATION OF THE PROOF TO NEUTRALISE OBJECTIONS
ARISING FROM THE APPARENT DEFECTS, OR REAL EVILS,
WHICH EXIST IN THE WORLD.

NOTHING can be more satisfactory than to find that the objections to which any conclusion seems to be liable may all be obviated or neutralised by an extension of the self-same principle on which the Proof is founded. When Newton first announced the great law of gravitation as a key to the mysteries of the heavens, it was observed that the planets were liable to a certain amount of *disturbance*, arising from their mutual attraction, and more or less intense, according to their relative positions at different periods; and this disturbance was, at one time, regarded as a serious defect in nature, since it might ultimately affect the stability of the whole system. But when it was subsequently shown, by an extension of the self-same law of gravitation, that provision was made for counteracting this disturbance, and that the possible aberration is so limited and bounded as to be perfectly compatible with the permanent order of the heavens, every one felt that the objection was neutralised, while the law was confirmed.

In like manner, the proof from Final Causes may be extended so as to neutralise every objection, arising either

from the apparent defects, or even from the real evils, which exist, whether in the natural or moral world. For if there be any truth in the principle on which that proof proceeds, it must have been God's design to make Himself known to His intelligent creatures,—and to make Himself known in such a way, and by such means, as should serve to exemplify and illustrate all the attributes and perfections of His nature.—We have seen that provision has been made, partly in the constitution of the human mind, partly in the structure of external nature, and partly in the marvellous correlation between the two, for making known some of these attributes. We are so constituted, that we rise necessarily to the conception of self-existence, immensity, and eternity;—and nature is so constructed as to impress us with the idea of omniscient wisdom and almighty power, while it exhibits, in innumerable instances, manifold proofs of goodness and benevolence. But there may be other perfections and prerogatives belonging to the Divine Nature, which could not be exemplified in the objects or processes of the mere material Universe,—perfections which it may be highly important for us to know, and which may have a close connection with our moral and spiritual welfare,—with our duty and our destiny, as the responsible subjects of His government. The instinctive suggestions of Conscience throw some light on the moral attributes of God, and enable us at least to conceive of them, just as our intellectual consciousness enables us to conceive of His power and intelligence as the Author of Material Nature:—but if that intellectual consciousness is supplied with an external stimulus and guide in the volume of material nature which is laid open before it, may it not be, that for the same reason, and with a view to the same end, our Moral Consciousness might need to be elicited and in-

formed by a corresponding volume,—the practical course of His procedure in Providence, as the Ruler of the moral world? The phenomena of material nature may reveal *much*,—but they may not be sufficient to reveal *all* that God designs us to learn and know concerning Himself. It may be necessary to a right estimate and full appreciation of His character, that we should know something more than can be learned from the mere suggestions of Conscience respecting His moral attributes;—it may be necessary to know something of the harmony of His perfections,—of the union of inflexible justice with infinite love,—of His tenderness, His patience, His long-suffering,—of His perfect sovereignty yet impartial rectitude, as the Moral Governor of free, intelligent, and responsible beings.—On the supposition that such beings exist, and that it was God's design to make Himself known to them in all the fulness of His character as He is, it was obviously necessary that they should have some other manifestation of God than any that they could find in the mere objects and events of material nature;—they must have some experience of His procedure in the moral world,—some opportunity of witnessing the exercise of His perfections,—some practical exemplification of the truth which they were to know and believe.

Extend the principle which is involved in the proof from Final Causes, so as to include every thing which God designed to make known concerning Himself, and you will find that it serves to mitigate every difficulty, and to neutralise every objection, with which we are at all competent to deal.—We cannot, indeed, sit in judgment on the plans of the omniscient Mind, or presume to assign any reason for their adoption other than that such was “the good pleasure of His will:” but we can effectually dispose of every objection that may be raised

against the wisdom of His procedure, by showing that every apparent *disturbance* in the moral as well as in the material world, may be counteracted and overruled for the best and highest ends,—and that the same principle of *design*, which is so conspicuous in every department of nature, may pervade also the whole course of Providence, so as to find its highest and noblest illustration in the ultimate issues of a scheme, gradually unfolded and progressively matured, which as yet is only imperfectly developed, and still more imperfectly understood.

The principle of design in nature, when it has been firmly established on the ground of many well-known and undeniable instances, may be warrantably extended to the explanation of other phenomena in which it is, as yet, less clearly discerned ;—and it is neither disproved nor weakened by the obscurity of some remaining mysteries, or the existence of some outstanding, and even insoluble, difficulties.—It is an error to suppose—as many seem to take for granted—that the good and the evil which exist in the world must be thrown into different columns, and the sum of the one subtracted from the sum of the other, if we would form a fair estimate of the natural evidence in favour of the wisdom and goodness of God. It is not even enough to say that there is a *preponderating* weight of evidence in favour of these attributes of His character. We are not in a condition to strike a balance between the good and the evil which exist under His government,—nor are we warranted in making any abatement from the positive evidence of His wisdom and goodness on account of the sin and suffering which prevail among men. And why? Simply because, for aught we know, these apparent disturbances may themselves be overruled for the best and highest ends,—they may be only fresh instances of the manifold wisdom of God,—affording new and most

instructive manifestations of His character,—and constituting an additional and deeply impressive chapter in the volume which He has spread out before us for our learning. The Final Causes which we discern in every other department of His works warrant us in supposing that He may have a great end in view in the permission of moral, and the infliction of natural evil; and such an end as will appear, sooner or later, to be in entire accordance with the wisdom and benevolence of His nature;—insomuch that on a review of all His dispensations, every holy and intelligent being in the universe may be constrained to exclaim, “Great and marvellous are thy works, Lord God Almighty; just and true are thy ways, thou King of saints: who shall not fear thee, O Lord, and glorify thy name? for thou only art holy: all nations shall come and worship before thee, for thy judgments are made manifest.”*

That the principle of design in nature admits of being thus extended, so as to neutralise the only serious objections to the natural evidence for the being and perfections of God, is a truth of fundamental importance in relation to our present argument.—Viewed in this light, that principle is like a golden thread which runs through all His works, both in creation and providence, and constitutes a tie which binds them all into the unity of one comprehensive scheme. It is a light which guides us through their darkest labyrinths,—a key which unlocks some of their deepest mysteries. It has already proved at once a powerful stimulant, and a suggestive guide, in the prosecution of scientific discovery: and it will never cease to exert a beneficial influence on the progress of human thought, until “the mystery of God shall be finished,” and faith converted into vision.

* Rev. xv. 3, 4.

When we apply this principle, in the first instance, to the apparent defects or anomalies in the material world, we see at once that our difficulties arise mainly from our ignorance, and that it becomes us to suspend our judgment till our knowledge is enlarged.—We assume that they have a final cause, although we are unable to discover what it is; that there is a reason for their being such as they are, although, with our present light, we cannot decypher or explain it.—We are ignorant of the design and uses of Volcanoes in the material world;—but we never doubt that they have a final cause,—we seek, by assiduous study, to discover the purposes which they serve in the vast economy of nature. We wonder at the abnormal formations,—the abortions,—the monsters which appear occasionally as anomalous exceptions to the usual rule:—but knowing that they are the results of general laws, somehow modified in their action, we cannot question that they have been wisely permitted, were it for no other end than to show by such variations that these laws are not necessary in their operation, and that the uniformity which generally prevails in nature is the result of a supreme will, which can adhere to the law or modify it at its pleasure.—Now, what Volcanoes and abnormal forms are in the Natural world, sin and sorrow may be in the Moral: they may be permitted for wise ends, of which we are as yet ignorant: they may have a final cause or purpose, not less than every other object or event in nature, and such a purpose as is at once worthy of the omniscient mind, and conducive to the ultimate end of all His works,—the manifestation of His own character to His intelligent and responsible creatures.

—For we must take into account the existence of free, intelligent, and responsible agents, if we would form any conception of the final cause of the present order of

things, or attempt to solve the difficulties which arise from our chequered experience of good and evil. We know from our own consciousness that such beings exist,—beings possessing a distinct personality,—self-conscious,—self-active,—and responsible ;—sensitive beings, susceptible of pleasure and pain ;—intelligent beings, who may know the truth or fall into error ;—moral beings, who may obey the law of their nature or rebel against it,—and become the willing servants of duty or the wretched slaves of sin.—In this fundamental fact we find the ultimate ground of every difficulty which can be seriously felt in regard to the present order of things. On the supposition that it was the Divine Will to create an order of beings capable of knowing the difference between good and evil, of choosing the one and refusing the other, and of being dealt with as His responsible subjects,—there can be no difficulty in seeing that a different method of treatment must be necessary for them from that which might be applicable to the planets in their courses, or to the varieties of mere vegetable and animal life : that if the material world might be governed by physical laws, stable in their operation and uniform in their effect, the moral world could be governed only by laws adapted to its essential nature, and not subversive of the responsible agency of the creature,—and that hence there necessarily arose the possibility of error, and sin, and suffering, as well as the capacity of knowledge, and obedience, and happiness. Let this fundamental fact be duly pondered,—let the idea of a system of moral government, applicable to intelligent and responsible agents, be firmly grasped,—and we shall then be prepared to discover what may be the final cause of many things in the present course of Providence which must otherwise appear to be dark and inexplicable enigmas.

Proceeding in an earnest spirit, and under the guidance of that principle of *design* which sheds its light on all the works and ways of God, we may hope, if not to solve all mysteries, yet to neutralise the force of every objection that can be urged against His wisdom and goodness in the government of the world. For there are some *practical difficulties*, which often exercise no inconsiderable influence even on thoughtful minds, and which have sometimes staggered the faith of those who were little, if at all, affected by any theoretical speculation. These difficulties have arisen chiefly from the contemplation of the chequered scene of human life, and from that mixed experience of good and evil of which every one is conscious in the present state. They relate generally to the existence of Moral and Physical Evil, under the Government of God. The *facts* on which they are founded are too palpable to be overlooked, and too certain to be called in question; *sin* and *suffering* are sad realities, which cannot be denied, and must not be explained away; and no explanation can be satisfactory which proceeds either on the assumption of their non-existence, or which, like certain theories of Fatalistic Optimism, would obliterate the radical distinction betwixt Good and Evil. But while the facts are certain, the *principles* on which an inference is deduced from them unfavourable to the character of God and the claims of Religion, may be neither self-evident nor true; they may have been rashly assumed or unwarrantably applied; and they may be found to involve a decision on matters which are "too high for us"—and which are "far up out of our sight."

The general objection is often stated in the form of a *dilemma*, and is prominently presented in some of the earliest records of human thought. It is thus exhibited

by Lactantius, representing the sentiments of Epicurus : "The supposed Deity was either *willing* to abolish all evils, but not *able* ; or, he was *able*, but not *willing* ; or, he was neither *willing* nor *able* ; or, he was both *able* and *willing*. If he was willing, and not able, he was impotent, which does not agree to the notion of God : if he was able, and not willing, then he was envious, which is equally alien from God : if he was neither willing nor able, he was both envious and impotent, and therefore not God : if he was both able and willing, which alone answers to the notion of a God, whence these evils ? or why does he not remove them ?" * It can scarcely be doubted, we think, that the objection, when thus stated, wears a plausible form, and that it may be urged so as to perplex, if not to convince, many a sincere inquirer. It can only be obviated by showing, either that the dilemma does not exhaust all possible suppositions, or that the inference, from one or other of the series, is unwarranted and groundless.

But before entering on the discussion of its merits, there are *two* preliminary remarks which we conceive to be of fundamental importance with a view to a right estimate of the real *state of the question*. The *first* is, that the evidence which has been already adduced from the marvellous adaptations of nature in favour of the being, perfections, and providence of God, cannot be set aside or obliterated by one or more outstanding, unresolved difficulties. Such difficulties exist in every department of Science, in consequence of the weakness of our faculties, or the limited extent of our knowledge ; but they have no perceptible influence in weakening our

* LACTANTIUS, "De Irâ Dei," c. xiii.

DR CUDWORTH, "Intellectual System," I. 143.

BUDDÆUS, "De Atheismo," p. 247.

confidence, or shaking our belief in the facts and laws which have been clearly ascertained and established on their own appropriate evidence. The existence, the wisdom, power, and goodness of God, are evinced by a mass of overwhelming evidence, arising from every department of nature ; and that evidence remains, notwithstanding the existence of evil. The latter does not annihilate the former : it affords no contradiction, even, to the statement that, in cases innumerable, we have in the works of nature the most irresistible proofs of consummate wisdom and communicative goodness.—Nay, the very allegation that *evil* exists, implies the perception of a radical difference between good and evil, and the existence of a standard of right and wrong.—We cannot infer, therefore, from the mere existence of evil, the non-existence of God, unless we shut our eyes to the evidence from those parts of His works whose ends and uses we are best qualified to understand.—Our *second* preliminary remark is, that what we do know of God's works affords a sure ground of *analogy* for concluding the same wisdom, power, and goodness to be concerned in His *other* works, which are as yet only partially developed, and still more imperfectly understood. The Atheist reverses this process of thought. He would make the existence of evil, whose ultimate issues are unknown, overbear and obliterate all the evidence arising from his ascertained knowledge of the constitution and course of nature ; he argues backward from what is dark and mysterious against that which is clear and certain as the light of day ; and not content with acknowledging his ignorance of some things, he would make that a reason for disbelieving other things, notwithstanding all the evidence by which they are established. Whereas *analogy* guides us from the known to the unknown. “Every particular which we have any

means of knowing the circumstances of, is demonstrably made the most useful and serviceable that the nature of the thing is capable of: and we ought, by parity of reason, to conclude the same of those things which we have not had opportunity or means of coming to so thorough a knowledge of. . . . So that if we would judge aright concerning any part of the creation, we ought to do it by such rules as are consistent with the known and certain perfections of the Deity; and since it is demonstrable that it is the effect of wisdom and goodness, we should endeavour to reconcile it to them. . . . By that little which we do know, we ought to determine concerning other things which we are not so certain of, and have not the means of being acquainted with; and not immediately to condemn them as *useless* or *evil*, because we are ignorant of the good or service that they do. . . . It is, therefore, a very good argument,—that *as* sure as we are of infinite Intelligence, Power, and Goodness, and that the Universe could not be the effect of mere chance or necessity, *so* sure are we that every thing created by such a Being must be worthy of those Perfections; and that all arguments to the contrary, drawn from the seeming *evil* or *irregularity* of some parts considered singly, are only arguments *ad ignorantiam*. This may be a general satisfaction: and we must in many things be forced to acquiesce in it, unless we could hope to have understanding enough to comprehend at once *all* the parts of the Universe, and see the *end* for which they were intended, and the exact subserviency of every one of them to it.” *

Reverting now to the *dilemma*, as above stated, we lay down the following Proposition,—that God *was able, but did not put forth his power to prevent* the origin and

* DR JOHN CLARKE, “Cause and Origin of Evil,” VI. 61, 6.

existence of Evil; that He was *willing to permit, and able to overrule it*, for the greater good of the Universe, and the brighter manifestation of His own glory.

This Proposition contains the germ of an answer to every objection founded on the existence of Evil, in so far as it can be grasped by our limited faculties. It is purposely constructed so as to guard against two opposite, but equally dangerous errors, into which some have fallen in the treatment of this subject;—the error of those, on the one hand, who speak as if, however willing, God was not able to prevent the appearance of Evil in the created universe, from a defect of *power*; and the error of those, on the other hand, who speak as if, however able, He was not willing to prevent it, from a defect of *goodness*. In connection with the former, elaborate attempts have been made to show that *natural imperfection*, or what has been improperly called *metaphysical evil*,* adheres necessarily to the nature, and is involved in the very idea, of created and dependent being; a truth which none will dispute who have ever seriously reflected on the immeasurable distance between the self-existent, independent, and absolutely perfect One, and the very highest of His creatures; but which proves nothing more than the mere *possibility* of sin, and cannot be held to exclude God's power to prevent its actual manifestation, if so it should seem good in His sight. It would be an unwarrantable and dangerous limitation of His power to affirm that He could not sustain His creatures in their integrity, merely because they are dependent on His sovereign will. Nor does it appear to be impossible for Him to do so, without inflicting violence on the *free-will* of the creature, and thereby destroying, as some have supposed, the essential properties of that nature which

* DR MULLER, "Doctrine of Sin," I. 257.

He had bestowed on the subjects of His government ;—for, as the holy angels and the spirits of just men made perfect are confirmed for ever in their integrity, without any destruction of their free-will, so it is conceivable that all his responsible creatures might have been upheld by His grace and power, had such been the good pleasure of His will. It is true that a scheme of moral government seems necessarily to imply a *possibility* of sin,—but it does not preclude the communication of such supplies of grace and strength as might have prevented that possibility from becoming an actual reality. We cannot hold, therefore, that God was unable to prevent the introduction of sin and death into His created universe. But while the general idea of a *moral government* is not necessarily exclusive of the aids of Divine grace, which might confirm obedient creatures in uninterrupted holiness and happiness, it is conceivable that, for wise ends, God might adopt the more special constitution of a *state or term of probation*, leaving their ultimate welfare to depend on their free obedience or disobedience during a limited season of trial ;—and such a constitution cannot be shown to be at variance either with His justice or goodness, unless it could be proved either that they were not endowed with sufficient power to stand the trial and retain their integrity, or that God was unable to overrule their fall for the fuller manifestation of His own glory, and the greater good of his spiritual kingdom.

It does not follow, however, that because He was able to prevent the introduction of evil by His power, He permitted it *from a defect of goodness*. He did permit it, but with the design of overruling it for the greater good of the Universe, and the brighter manifestation of His own glory. The *dilemma*, as stated by Lactantius, omits this consideration altogether. It does not exhaust

all possible suppositions. It is possible that He might be able to *prevent*, and yet willing to *permit* evil, with a view to a greater ultimate good. If so, infinite benevolence would concur with unerring wisdom, in adopting that plan for the government of the Universe which, on the whole, would best subserve His grand design in the creation of it. Were this a mere *hypothetical supposition*, it would still be sufficient to neutralise the objection; and to elevate our thoughts far above the mere existence of evil, to the contemplation of those great and lofty ends which may be subserved by it in the moral government of God.

But it is far from being a mere hypothetical supposition; it is a doctrine which is in entire accordance with many undeniable facts in human experience, as well as with the express teaching of Scripture. It is clear that man has been endowed with a moral constitution, which renders him a responsible subject of the Divine Government. It is equally clear that God did not interpose to prevent the introduction of evil into this portion of His dominions. In the actual dispensations of His Providence physical is associated with moral evil, and suffering is employed to punish sin. By this means prudence is made the ally of virtue, and good is, to some extent, even in the present state, evolved out of evil. These are plain, palpable facts, established by universal experience. Now, if there be any truth in the doctrine of *final causes*, we may conclude, from the innumerable instances of wise and benevolent design which abound in the works of Creation, that the works of Providence are destined to subserve similar ends; and that as the former class of His works are evidently adapted to make Him known to His intelligent creatures as their omniscient and intelligent Creator, so the latter are designed

to make Him known as their righteous Lawgiver, Governor, and Judge. To make Himself known, in His true character, in the relations which He sustains to His creatures, and in all the fulness of His infinite perfections, is the ultimate end of all His works:—there being only this difference between the works of Creation and those of Providence, that the former are already *complete*, and exhibit unchangeable monuments of His wisdom, goodness, and power; whereas the latter are *progressive*, and belong to a system which is as yet imperfectly developed, and still more imperfectly understood. In the one, God teaches us by *visible signs*, which may be immediately decyphered; in the other by *dramatic action*, which may not be fully understood till the closing scene; but in both, there are sufficient indications of the same great purpose and plan,—to make Himself known as He really is, or, in other words, to manifest his own glory. And when to these natural indications, we add the express teaching of Scripture,* that in *all* His works,—whether of Creation, Providence, Redemption, Grace, or Judgment,—He has regard to this as His supreme ultimate end, we may well rest in the assurance that whatever evils may have been permitted to occur will all be overruled for its accomplishment, and will contribute largely, in their final issue, to the glory of God and the benefit of His obedient or penitent subjects.—We dare not entertain the question whether the same end might not have been better accomplished in some other way; or whether, without the permission of evil, His intelligent creatures might not have been instructed and impressed with a sense of all His perfections; nor is it necessary that we should,—since it is sufficient for us to know that this method has been adopted by Omniscient Wisdom, and that it is fitted,

* PRESIDENT EDWARDS, "God's Chief End in Creation," I. 443.

as well as designed, to accomplish the loftiest ends.— Without the permission of evil, there could have been no work of Redemption or Grace ; and that work is designed to make known, not only to the Church on earth, but “to principalities and powers in heavenly places, *the manifold wisdom of God.*” Is it possible to conceive that the same enlarged and profound views of the character and government of God could have been acquired without any such *practical* manifestation of them? or that the stupendous dispensations of Providence and Redemption should have no effect in enhancing our reverence for Him, “of whom, and through whom, and to whom are all things?”

The doctrine which teaches, that the manifestation of His own glory is God’s chief end in all his works, is often misunderstood,—as it evidently was by Descartes,—and it has sometimes also been perverted and misapplied. It has not been duly considered, that it relates, not to His *essential*, but to His *declarative* glory. The former can neither be increased nor diminished ; the latter may be manifested in His works. And when it is said that the chief end of all His works is to glorify His great name, what is this but to affirm that He is willing to make Himself the supreme good and everlasting portion of His intelligent creatures, and that all His purposes and plans are directed to that infinitely beneficent end? The souls which He has made cannot find full satisfaction in any created thing ; *their* chief end is to glorify God, by perceiving, adoring, and delighting in His infinite perfections, so as to enjoy Him for ever : and in fit correspondency with this, *His* chief end is to make Himself known as He really is. And what an enlarged view of the Divine Benevolence is obtained, when we contemplate the whole series of His dispensations in this light,

and see that He is both able and willing to overrule all events for the accomplishment of that end, and to bring "good out of evil, order out of confusion, and light out of darkness?"

The general conception of the Divine plan which we have thus briefly stated, is sufficient, if not to remove every difficulty connected with the permission of evil, at least to show that it may be overruled for ends entirely consistent with the most enlarged benevolence, and highly illustrative of the character and government of God. There is a sound sense in which the Theory of Optimism may be maintained, in perfect consistency with the acknowledgment of a real and eternal difference between good and evil, and without the slightest risk of affording any countenance to the errors of Syncretism or Fatalism.* Nor is there any difficulty in disposing of the Manichæan heresy on the same ground, whether as it was propounded of old, or revived by Bayle in modern times:† since there can be no need to suppose two self-existent, independent, and antagonist principles, unless we find it impossible to rise to a *higher unity*, comprehending both good and evil, by ascribing the production of the one, and the permission of the other, to the sovereign purpose of Him who can make both subservient, although in different ways, to His grand ultimate end.—

So much for the great difficulty, arising from the existence of Evil, considered in its most general aspect. There are several particular topics, however, included in the more comprehensive question, one or other of which is often found to press heavily on the minds of thoughtful

* LEIBNITZ, "Theodicée," French Edition, I. 73, and "La Cause de Dieu," I. 365.

ARCHBISHOP KING, "Essay on the Origin of Evil," Law's Edition, x., xviii.

† BAYLE, "Reponse aux Questions," I. 70-240.

men, and to exert an injurious influence on their faith, even when they do not issue in avowed infidelity. They are chiefly these—the *first origin* of Evil,—its *extensive prevalence*,—its *hereditary transmission*,—its *unequal distribution*,—and its *prospective permanence*, or even *perpetuity*.

1. The *origin of Moral Evil*, considered in its relation, not to the permissive will of God, but to its source or cause in the will of the creature, has exercised the thoughts of many speculative minds, and sometimes occasioned perplexity to more ordinary men. It is not easy to conceive how an intelligent creature, endowed with a moral constitution, and proceeding from the hand of God, not only without sinful propensities, but with holy dispositions, as a being formed in the Divine image, should have first entertained the thought, or formed the wish, which led to his fall into a state of sin and rebellion: and this difficulty, combined with the idea of God's necessary concurrence in every act of the creature, has induced some to feel that, in one way or other, immediately or indirectly, God must himself be the author of sin.* With the view of obviating this difficulty, Scholastic Divines have usually ascribed the origin of Moral evil to a *defective cause*, — *i.e.*, to the natural imperfection which belongs necessarily to every created being:†—but as this accounts only for the *possibility*, and not for the *actuality*, of moral evil, it is usually added that it springs from an *abuse of Free-will*. The explanation is imperfect, and perhaps must ever remain so, in the present limited state of our knowledge. It is very remarkable that Revelation itself sheds no light on

* "Essay on Christianity," by a LAYMAN, p. 52; Edinburgh, 1827.

† ARCHBISHOP KING, "Essay," p. 116.

DR BROWN, p. 320.

the first origin of sin in the universe of God: it speaks of "angels who kept not their first estate," but does not explain the cause or reason of their fall; it accounts, historically, for the introduction of sin and death into this lower world, through the agency of Satan, and the temptation and fall of our first parents; but it offers no solution of the psychological difficulty to which we have referred. No such solution was necessary for the practical purposes for which Revelation was mainly designed. It clearly represents man, as an intelligent, moral, and responsible agent, having a law con-created with his nature by which he was "a law to himself," as well as a more special positive precept, imposed upon him by Divine authority, as a test of his obedience,—and accompanied with the sanctions of reward and punishment;—left free to stand, or free to fall,—and yielding to the seductions of the tempter, instead of obeying the simple word of God. And what does this instructive narrative teach, if it be not the absolute dependence of the creature on the Creator, and the liability even of perfect manhood to fall into sin, without His preventing and sustaining grace?

But in no sense, other than that which implies merely that He did not interpose to prevent it, can it be said that God is the Author of Sin. It is true that the creature is dependent on Him for its continuance in being, and for the exercise of all its powers; it is equally true that God infallibly foresaw whatsoever should come to pass: but it is not less certain that *second causes* were called into being whose agency is not to be confounded with His; and that His intelligent, voluntary, and responsible creatures were capable of disobeying His will, although they could by no means frustrate His counsels. Neither His Prescience, nor His Predestination, nor His Providence, alters or interferes with the constitution which

He had bestowed on His creatures. He “ordains whatsoever comes to pass, yet so as thereby neither is God the author of sin, nor is the liberty or contingency of second causes taken away, but rather established. . . . He doth uphold, direct, dispose, and govern all creatures, actions, and things, from the greatest even to the least, by His most wise and holy Providence, according to His infallible foreknowledge, and the free and immutable counsel of His own will, to the praise of the glory of His wisdom, power, justice, goodness, and mercy;—yet, by the same Providence, He ordereth them to fall out according to *the nature of second causes*, either necessarily, freely, or contingently. . . . It extendeth itself even to the first fall, and all other sins of angels and men,—and that not by a bare permission, but such as hath joined with it a most wise and powerful bounding, and otherwise ordering and governing of them, in a manifold dispensation, to His own holy ends; *yet so as the sinfulness thereof proceedeth only from the creature, and not from God, who, being most holy and righteous, neither is, nor can be, the author or approver of sin.*” *

The light of nature itself might teach us, that God cannot be the author or efficient cause of Moral Evil. For has He not implanted in every bosom a law which prohibits, denounces, and condemns it? And is not the whole scope of His moral government directed to show that He hates that which is evil, and loves that which is good? But the testimony of Revelation is express and decisive. “Let no man say when he is tempted, I am tempted of God: for God cannot be tempted with evil, neither tempteth He any man. But every man is tempted, when he is drawn away of his own lust and enticed. Then when lust hath conceived, it bringeth

* “Westminster Confession,” c. iii. s. i., c. v. s. i., ii., iv.

forth sin, and sin, when it is finished, bringeth forth death.”* “Not as if He were the author of those acts which have their source in the evil will. They are, by their very definition and nature, resistances to His will, rebellions against it. But as they work out their own sentence and condemnation, they become the reluctant servants of Him whom they are fighting; they are not only foils to His righteousness,—they actually help, as Scripture expresses it, to turn righteousness into judgment, to make the truth which they are denying manifest for their own age and for all ages to come. Deep and unfathomable mystery, worthy to be meditated on by those who are fighting with evil upon earth, and by those who have won the victory; the key to all the puzzles of history, the comfort and consolation amid the overwhelming evils which we see around us and feel within us; the deliverance at once from the debasing Pantheism which teaches that sin is only another form of righteousness—wrong only an aspect of right,—and from the Manichæism which would lead us to think that evil may at last triumph, or hold a divided empire with God. The wrath of man has praised Him, and will always praise Him. Sin and Death and Hell must do Him continual homage now, and will be led as His victims and grace His triumph, when His glory is fully revealed. But neither now nor then will they ever blend with His works, or be shown to have their origin in Him, or be known as any thing but the contradictions of His nature.”†

* James i. 13–15.

McLAURIN’S “Works,” I. 25,—“The sins of men not chargeable on God,”—an admirable discourse.

† F. D. MAURICE, “Prophets and Kings of Old Testament,” p. 98. Mr Maurice’s *peculiar* views, as expounded in his “Theological Essays,” have been ably reviewed by Dr Candlish.

2. The *extensive prevalence* of evil is another consideration which often weighs heavily on the minds of thoughtful men, when they contemplate the actual dispensations of God's Providence on earth, and especially when they are themselves subjected to overwhelming distress, or exposed to impending danger. In such circumstances they are prone to cherish gloomy and dis-tempered views of the whole course of human affairs, and to question, in the bitterness of their hearts, both the wisdom and goodness of the supreme Ruler of the world. When they behold, as mere spectators, the ravages of war, and famine, and pestilence; when they visit the lazar-houses, the asylums, the prisons, where human misery, in all its most revolting forms, is placed vividly before them; and when they consider the number and variety of the ills which flesh is heir to,—above all, the universality of death, the horrors of dissolution, and the darkness and corruption of the grave,—they are tempted to regard the earth as only the temporary residence of the dying, and the dreary sepulchre of the dead; they feel that “all is vanity and vexation of spirit,” and while they look only at the temporal aspects of human life, they will be ready to exclaim with the Psalmist, “Wherefore hast thou made all men in vain?”* But when, besides being the mere spectators, they become the subjects, of severe and protracted suffering; when they are involved in worldly embarrassment and ruin, stunned by disappointment, pinched by poverty, and visited with repeated bereavements; when the end of one calamity is only the commencement of a new and still more painful trial; when, in short, their present circumstances and their future prospects are alike dark and

* Psalm lxxxix. 47.

JOHN HOWE, “The Vanity of Man as Mortal,” Works, III. 295.

gloomy, the former unmitigated by any sensible comfort,—the latter unrelieved by a single ray of hope,—in such circumstances, if their thoughts be entirely engrossed with “things seen and temporal” to the exclusion of “things unseen and eternal,” they will be tempted to cherish the same bitter spirit which prompted Job’s wife to say, “Curse God, and die;” and which is exemplified in the impenitent, of whom it is said that “they blasphemed the name of God, which hath power over these plagues, and repented not to give Him glory.” We believe that the distresses of human life, and especially “the oppressions which are done under the sun,” are often the temporary occasions, if they be not the ultimate cause, of those dark atheistic thoughts which many have entertained; and for this, among other reasons, we think that Atheists themselves should be regarded with compassion and treated with tenderness, since they suffer the evils of life without a single alleviation arising either from faith or hope. The believer who regards all the dispensations with which he is visited as coming to him from an unerring and gracious Providence, can see, even in his severest trials, a part of that painful but salutary discipline by which God is training him for “glory, honour, and immortality;”—he rests assured that there is some wise, although it may be inscrutable reason for them all,—that it is only “if need be, that he is in heaviness through manifold temptations,” and that while “no chastening for the present seemeth to be joyous, but grievous, nevertheless afterward it yieldeth the peaceable fruit of righteousness unto them which are exercised thereby.” Such, and so widely different, are the effects produced on the religious and irreligious, respectively, by the same dispensations of Providence;—in the one case, they bring the mind nearer to God as its stay and hope,

“a very present help in the time of trouble:”—in the other, they produce alienation from Him, distrust of His character, and hatred of His government. Which of the two effects is the more comforting, salutary, and ennobling, it were superfluous to say, since it must be obvious to all; and which is the more *reasonable*, must be determined by the whole evidence which attests the existence of an omniscient, good, and righteous Governor of the world. If we have reason to believe that He “afflicteth not willingly, nor grieveth the children of men,”—that in every one of his dispensations, however dark and distressing it may seem to be, He has some wise, and holy, and benevolent purpose in view,—and that all will be overruled for the spiritual instruction and moral welfare of the universe,—then we may rest in the assurance that, sooner or later, it will be made manifest that “the Lord hath done all things well.” When we speak of the extensive prevalence of evil, we ought to remember, further, that our experience is confined to a very limited portion of His boundless empire; and that this world may bear no greater proportion to the wide extent of His dominions than a single prison or asylum bears to a wide-spread and prosperous kingdom. A province in revolt may be visited with evils such as are unknown to the obedient and happy subjects of a well-ordered commonwealth. The earth, as a fallen world, may need a kind of discipline very different from that which is suitable for the myriads of intelligent beings who have kept their first estate.

3. The *hereditary transmission*, and the consequent *inevitable necessity* of evil, in the present state of human nature, is another consideration which has operated powerfully on some minds in producing a gloomy view of the Divine government, and even in perplexing

their thoughts respecting the radical difference between right and wrong. It is evident that man is now born into the world in circumstances which render it impossible for him, by any effort of his own, to avoid suffering and death.—“Although affliction cometh not forth of the dust, neither doth trouble spring out of the ground; yet man is born unto trouble, as the sparks fly upwards.”* It is equally evident that his moral nature is tainted with corruption, and that while he has a law written on his heart, by which he is “a law to himself,” he has also “a law in his members warring against the law of his mind.” In these circumstances, sin and suffering seem to be the inevitable lot of man on the earth;—and some have been tempted to accuse the Divine government on this account,—to excuse or even to deny the guilt of sin,—and to impute the whole blame of suffering to the arbitrary will of God. There are difficulties connected with this subject which we think the mere light of nature cannot resolve, but which may be removed by the clearer light of Revelation. It were as difficult to suppose that man was first placed in a *state of probation*, as that he was *originally created* in the moral condition in which we now find him: either supposition would be derogatory to the character of God. To create a being tainted with corruption, and then to place him under a pure, spiritual law, requiring moral perfection, would amount to a flagrant contradiction:—but no such contradiction is involved in the doctrine which teaches that man was created in the image and likeness of God, and, being constituted the legal head and representative of his posterity, was subjected to a probationary test, in this his public capacity, under a constitution or covenant which included himself and all

* Job v. 7, 8.

his posterity. There is a wide difference between the two suppositions,—that which represents the hereditary transmission and inevitable necessity of moral and physical evil, in the present state of human nature, as the result merely of the *sovereign* will of God, and that which represents them as the result of His *judicial* will, consequent on a representative probation in a primeval state of innocence and perfection. The doctrine of original sin, in its Scriptural sense, presupposes such a probation; and however it may be thought to be encumbered with peculiar difficulties of its own, it will be found, by seriously reflecting minds, to throw a flood of light on some of the darkest problems of Natural Theology.

4. The *unequal distribution* of evil, or the manifest disproportion between the *sins* and the *sufferings* of different men in the present life, is one of the main arguments of infidelity, and has often staggered the faith of true believers.—Cicero* and Lucretius enlarge upon it; and so also did David and Solomon. “But as for me, my feet were almost gone; my steps had well-nigh slipped. For I was envious at the foolish, when I saw the prosperity of the wicked. . . . They are not in trouble as other men; neither are they plagued like other men. . . . Therefore his people return hither; and waters of a full cup are wrung out to them. And they say, How doth God know? and is there knowledge in the Most High? Behold, these are the ungodly, who prosper in the world; they increase in riches. Verily I have cleansed my heart in vain, and washed my hands in innocency. For all the day long have I been plagued, and chastened every morning. If I say, I will speak thus; I should offend against the generation of thy children. When I thought to know this, it was too painful

* CICERO, “De Naturâ Deorum,” l. iii., s. 26.

for me; until I went into the sanctuary of God,—*then understood I their end.*” “All things come alike to all: there is one event to the righteous, and to the wicked; to the clean, and to the unclean; to him that sacrificeth, and to him that sacrificeth not: as is the good, so is the sinner; and he that sweareth, as he that feareth an oath. This is an evil among all things that are done under the sun, that there is one event unto all.”* —We neither deny the facts, nor denounce all inquiry into their reason and end. It was in a truly reverential spirit, and with a deep sense of the unsullied holiness of God, that the prophet exclaimed, “Righteous art thou, O Lord, when I plead with thee: yet let me talk with thee of thy judgments: *Wherefore* doth the way of the wicked prosper? wherefore are all they happy that deal very treacherously?”† The facts are utterly inconsistent with the idea that the present state is one of strict personal retribution; but they are not in the least inconsistent with the doctrine which teaches that men are now placed under a system of Moral government, preparatory to a judicial reckoning hereafter. There are many ends which may be subserved by the unequal distribution of good and evil, in the way of testing the character both of the righteous and the wicked, which could not have been secured by a more strict immediate retribution. The same reasons, therefore, which led to the adoption of a system of moral government at all, might also lead to the postponement of retribution, till the characters of men had been fully formed and developed, and they had become ripe for judgment. The reality of a moral government, even in the present life, is not affected by the irregular distribution of good and evil, since it is

* Psalm lxxiii. 2, 3, 5, 10-17; Ecclesiastes ix. 2, 3.

† Jeremiah xii. 1.

abundantly established by the existence and operation of a moral law, although its ultimate issues are not developed in the preparatory state of probation, but reserved for the final state of reckoning. There is no reason, therefore, to regard the actual procedure of Divine Providence in the present life as inconsistent with the wisdom, goodness, or justice of God,—while it affords manifold and most affecting proofs, which might otherwise have been wanting, of that “long-suffering and forbearance” which is designed and fitted to “lead men to repentance.”

5. The *prospective permanence* or even *perpetuity* of physical and moral evil under the Divine Government is another consideration which has provoked the virulent opposition of Atheists, and which has often agitated the minds of believers themselves. They might possibly be reconciled to the idea that the temporary permission of evil was not inconsistent with the Divine perfections, and that it would ultimately be overruled for the higher good of the Universe; but they cannot rest satisfied with any thing short of a universal restoration, in which every creature of God shall be rescued from sin and suffering, and raised to the highest perfection of their being. We desire to speak on such a subject with the caution and reverence which its unutterable solemnity demands; but to the Atheist we say, that if he can cherish such a hope, it must rest only on the infinite goodness of that Being whose very existence he professes to doubt or to deny, since there is nothing in his own creed, according to the confession of some of its greatest oracles, that can ensure him against the fear of everlasting guilt and misery. For the same chance, or the same necessity, which has entailed sin and suffering and death on all the generations of men on the earth, may, for ought he knows,

perpetuate his conscious existence in connection with similar evils for ever. But to the earnest, conscientious inquirer, and especially to the Christian believer, who may have been agitated and appalled by the prospect of the interminable perpetuity of evil under the righteous government of God, we say, "Be not rash with thy mouth, and let not thine heart be hasty to utter any thing before God; for God is in heaven, and thou upon earth; therefore let thy words be few."* Consider well the magnitude of the task which you undertake when you sit in judgment on the future ways of God. If there be a moral government of the world at all, we are entitled to assume the existence of a Governor possessed of infinite rectitude and perfection; and we may rest in the assurance that "the Judge of all the earth will do that which is right," and that while "clouds and darkness are round about Him, justice and judgment are the habitation of His throne, righteousness and peace go continually before his face." Had we existed before the earth was formed, we might have thought it unlikely, or even impossible, that its future history should be such as we now know it to have actually been; and as we should have been wrong in *then* pronouncing against the possible permission of evil, we may be equally wrong now in denying the future permanence of sin and its everlasting punishment. We may warrantably infer from the Divine perfections, since it is necessarily implied in them, that He will never act towards any of his responsible creatures in a way that is really either unjust or cruel: but we cannot, in the face of what we know of His past procedure, infer from them that He will leave none to continue in sin, or that such as continue in sin shall ever escape His righteous judgment. For ought we know,

* Ecclesiastes v. 2.

the same reasons which led to the permission of evil at all, may equally lead to the perpetuation of it : and as it is His grand design to overrule it for the manifestation of His own glory and the greater good of the Universe, so He may continue to uphold a condemned world as a place of punishment, to be a perpetual memorial and visible monument of His holy hatred of sin. To affirm that he either can not, or will not, or should not, do so, were to arrogate the right and power to determine what may, or rather what must be the methods of His Providence in accomplishing His grand ultimate designs ;—it were to “limit the Most High ” by setting bounds to the manifestation of His perfections, and to make our conceptions of what is right and fitting the measure and rule of His procedure. “But His ways are not as our ways, neither are His thoughts as our thoughts : for as the heaven is high above the earth, so His ways are higher than our ways, and His thoughts than our thoughts.” We are the worst possible judges in a question of this kind. As sinners, we are deeply interested parties, and very liable to be deceived. Especially in judging of the evil and demerit of sin, or of the degree and duration of its punishment, we are prone to adopt such views as may best serve to allay our fears, without being very solicitous about their truth. We should remember that *God is the sole competent judge of what would be an adequate expression of His own holy abhorrence of evil*,—and that since the very end of punishment is the manifestation of His infinite and inflexible justice, so both its intensity and its duration must bear some proportion to that glorious and unchangeable attribute of His character. In the words of another,—“The further any man advanceth in holiness and purity, the clearer is his view, and the quicker his sense, of the evil of sin. With parity of reason, it

may be conceived that the greatest saint on earth does not see the evil of sin so clearly as an angel; and if this reasoning be carried higher, an infinitely holy and excellent Being will discern incomparably more evil in sin, and hate it more (and that with the most perfect reason and justice) than the holiest man on earth, or the most glorious angel in heaven. It is plain, God, by being the purest and most holy of all rational beings, is the fittest to judge of the evil of sin. . . . In the matter of justice, God is to be considered, not merely as a private person or offended party, but as a Public Person or Supreme Magistrate, who himself alone is capable of judging what are those measures in the punishment of sin that are absolutely best, *in order to the best and most excellent way of governing the world.*" *

In conclusion, on a review of all the topics with which our attention has been engaged, we recommend the careful study of Bishop Butler's "Analogy of Religion," and especially the seventh chapter of the first part,—“On the Government of God, considered as a Scheme, or Constitution, imperfectly comprehended,”—as a treatise which, more than any other of human origin, is fitted alike to relieve the minds of sincere and earnest inquirers, and to check the license of daring and presumptuous speculation.

* M'LAURIN, "Essays," II. 11, 13.

SECTION II.

EXAMINATION OF THE RATIONAL PRINCIPLES WHICH
ARE INVOLVED IN THE PROCESS OF PROOF.

EXAMINATION OF PRINCIPLES, &c.

INTRODUCTORY REMARKS.

AN able and accomplished writer, who has recently made a very seasonable and valuable contribution to the cause of Natural Theology, offers the following remarks on the studies which should now be prosecuted by those who would engage in the defence of its claims:—"The mighty change which has taken place during the present century in the direction in which the minds of the first order are operating, though indicated on the face of the country in characters which cannot be mistaken, seems to have too much escaped the notice of our theologians. Speculative theology and the metaphysics are cognate branches of the same science: and when, as in the last and the preceding ages, the higher philosophy of the world was metaphysical, the Churches took ready cognisance of the fact, and, in due accordance with the requirements of the time, the battle of the Evidences was fought on metaphysical ground. But, judging from the preparations made in their colleges and halls, they do not now seem sufficiently aware,—though the low thunder of every railway, and the snort of every steam-engine, and the whistle of the wind amid the wires of every electric telegraph, serve to publish the fact,—that it

is in the department of physics, not of metaphysics, that the greater minds of the age are engaged,—that the Lockes, Humes, Kants, Berkeleys, Dugald Stewarts, and Thomas Browns, belong to the past,—and that the philosophers of the present time, tall enough to be seen all the world over, are the Humboldts, the Aragos, the Agassizes, the Liebiges, the Owens, the Herschells, the Bucklands, and the Brewsters. . . . Let them not shut their eyes to the danger which is obviously coming. The battle of the Evidences will have as certainly to be fought on the field of physical science, as it was contested in the last age on that of the metaphysics. And on this new arena the combatants will have to employ new weapons, which it will be the privilege of the challenger to choose. The old, opposed to these, would prove but of little avail. In an age of muskets and artillery, the bows and arrows of an obsolete school of warfare would be found greatly less than sufficient in the field of battle, for purposes either of assault or defence.”*

We cordially agree with the distinguished author in all that he has said in favour of the study of the Physical Sciences, as an important auxiliary to the defence both of Natural and Revealed Theology; for there are many points of contact between the several branches of sacred and secular learning, which, in the absence on either side of sufficient knowledge, may readily become points of collision and conflict. For this reason, we have long regretted the comparative neglect of Natural Science, especially in the English Universities; and have desidederated, in common with Mr Miller, President Hitchcock, and Professor Fleming, the institution of preparatory classes for that study in connection with the Theological course. But, in urging the claims of physical science, we

* MR HUGH MILLER, “Footprints of the Creator,” p. 21.

must not underrate the importance of metaphysical speculation, or speak of it as if it were now obsolete or out of date. Mr Miller admits that "speculative Theology and the Metaphysics are cognate branches of the same science," and he cannot be supposed, therefore, to have the slightest sympathy with the founder and followers of the Positive school, who would discard metaphysics altogether,—indeed, his own work abundantly testifies that he has a due regard for the study both of first and final causes. We are free to confess, for we have often painfully felt, that the metaphysical element was superabundantly infused into the Apologetic literature of the seventeenth and eighteenth centuries,—and that certain doctrines were often supported by a train of deductive reasoning, which might have been more conclusively established by an appeal to facts.—But we cannot, on that account, discard the study of metaphysics, or relieve ourselves from the task of considering those questions which have been agitated in all ages respecting the laws of thought that are involved in the process of Theological proof.—Every belief depends on some psychological principle, as well as on certain ascertained facts,—and when the facts are so clear as to be undeniable, scepticism may still take refuge in the region of metaphysics, and can only be dislodged from it by a sound inductive psychology. This is pre-eminently the case with the Theistic argument. The *facts* on which that argument proceeds are seldom disputed :—the existence of *order* in nature, and of manifold adaptations subservient to useful ends, is freely admitted ; but the grand ultimate question remains, whether that *order* indicates, or is capable of proving, the existence of a living, personal, designing Cause, distinct from nature, and superior to it : and this question cannot be satisfactorily solved,—nor the sophistry by which it has been

perplexed effectually exposed, without the aid of Metaphysics.—Natural Science may do good service in the way of enabling us to disprove certain *false* theories respecting the origin of the existing order of things, such as the theory of Development, to which the “Asterolepis of Stromness” affords a conclusive answer: but Natural Science *alone* will not suffice in dealing with the theories of Pantheism and Materialism: it must be combined with a sound Psychology, and a searching Metaphysics.

The Atheism, indeed, which is most prevalent, is not *dogmatic*, but *sceptical*; and the scepticism which is avowed in modern times relates not to the *facts* on which our conclusion ultimately rests, but to the *process of inference* by which it is extracted from these facts. It admits the phenomena and laws of nature to be such as we describe, but questions the laws of thought by which we rise from Nature up to Nature’s God. This must be our apology for offering, in a few brief chapters, a review of the various opinions which have been entertained respecting the *mental process* by which, from the phenomena and laws of Nature, we rise to the knowledge of God, and a statement of the grounds on which we believe that process to be as legitimate and valid as any other exercise of the human intellect.

CHAPTER I.

THE METAPHYSICS OF THEISM.

IN a former age, when the doctrine of *innate ideas* was generally maintained, the idea of God, which is so natural and so universal, was held to be born with us, and to be indelibly engraved on every human heart.—Since the age of Locke, all our ideas, and that of God amongst others, have been regarded as acquired, and ascribed either to sensation or reflection. There is reason to doubt, however, whether the doctrine of “innate ideas,” in the sense in which that expression is now generally understood, was really taught by many of those to whom it has been imputed, and whether they did not rather mean that certain ideas were so *connatural* to us, and certain beliefs so irresistibly suggested by the laws of our mental being, that they sprung up spontaneously in the first dawn of conscious experience. There is also reason to doubt, whether Locke, in ascribing the origin of all our ideas to sensation and reflection, made sufficient allowance for those fundamental laws of thought which regulate and determine most of our primary beliefs.—“The distinction,” says Professor Sedgwick, “between *innate ideas* and *innate capacities* is almost overlooked in the work of Locke. . . . If the mind be without innate knowledge, is it also to be considered as without innate

feelings and capacities,—a piece of blank paper, the mere passive recipient of impressions from without? The whole history of man shows this hypothesis to be an outrage on his moral nature. Naked he comes from his mother's womb : endowed with limbs and senses, indeed, well fitted to the material world, yet powerless from want of use ; and as for knowledge, his soul is one unvaried blank. Yet hath this blank been already touched by a celestial hand ; and when plunged in the colours which surround it, it takes not its tinge from accident but design, and comes forth *covered with a glorious pattern.*”* “The soul of man,” says Dr Müller, “is not originally *tabula rasa*, as Locke's empiricism supposed it, but may more correctly, with Herbert of Cherbury, be termed a *closed book* ; it contains in itself, from the first, a fulness of determinations.”† It were a strange oversight, in considering the origin and laws of human belief, to omit all reference to those elements which are spontaneously furnished by *the mind itself* in the exercise of its own innate powers, or to overlook those fundamental laws of thought, so well illustrated by the Scottish and Kantian Psychologists, which not only suggest the idea, but irresistibly impose the conviction, of many truths which far transcend the limited range of mere empirical observation.—We believe that in these connatural laws of thought, there is a solid ground, as well as a sure provision, for Religious Belief, although we do not hold that they come into play anterior to experience, or that there is any *innate* idea of God.—

The dispute about *INNATE Ideas* or *FIRST PRINCIPLES* is well described in the “Edinburgh Review” for January

* PROFESSOR SEDGWICK, “Discourse,” pp. 48, 53.

† DR JULIUS MÜLLER, “The Christian Doctrine of Sin,” II. 5.

1852.—Referring to the “controversy respecting the origin of human knowledge, or the genesis of our ideas,” the writer says,—“It is whimsical, at first sight, that men should be more agreed about the deductions and results derived from the first principles than about the origin of the first principles themselves; that the house should be apparently stronger—though not really stronger—than the foundations. But it is for the usual reason; the foundations are out of sight. Men certainly believe that two and two make four, and that two straight lines will not enclose a space; but whether these things be ‘generalizations from experience,’ or assume the shape of axioms (as soon as the very terms are propounded and understood), in virtue of the very constitution of the mind itself, we see by the differences of opinion between even such men as Dr Whewell and Mr John Mill, that men are *not* agreed.—That there *is* a material world they are pretty unanimous: but *why* they think so, the most acute among them are still puzzled to say. They are also tolerably agreed that there is a God; but whence that idea is collected, or at all events whence it may be most unexceptionably and summarily inferred,—whether it does not anticipate all demonstration, and, if not, how it may be best demonstrated,—as to all this, Metaphysicians are perpetually wrangling!

“That there are *two* distinct sets of conditions essential to the genesis and formation of our ideas, is now admitted with tolerable unanimity by Philosophers. They, for the most part, alike maintain that the mind is originally constituted with its own fundamental laws of thought, which will inevitably cause it to develop only to certain effects—that is, by which it will develop thus and thus, and not otherwise;—and that at the same time a certain external influence, a contact with the outward world, is

absolutely necessary, without which it would never develop at all.”—“The external world presents us with abundant illustrations of an analogous union of seemingly diverse conditions of development. Thus the internal structure of the flower is such that it will develop only to a certain colour, form, fragrance, and no other; yet without the sun, the wind, the dew, the rain, the soil, it will remain in the germ. In like manner, the eye, were it otherwise constructed than it is, would not see whatever the abundance of light; and were it constructed as it is, could see just as little if there were no light at all.”

Referring to the distinction between contingent and necessary truths, the writer says, “How came the mind to make any distinction between them? In all those cases in which the mind says, ‘This is a necessary truth, it cannot be otherwise’—and ‘This is a generalization of an equally uniform experience, but it *might* have been otherwise,’—how is it that the mind comes to make this distinction at all, and to *feel* it yet more strongly than it can *express* it? The very classification of truths into two such divisions (experience in either case being the same), is, we think, proof that the mind has the power of acquiring from experience *what experience alone could never give*. To us it seems most rational to believe that the suggestions of experience and the innate *capacities* of the mind itself, alike conspire to render our thoughts such as we find them; the outward world ministering those materials without which the mind would be without any thought at all—wrapped in a perpetual slumber; and the mind itself so operating upon those materials as to give its conceptions their form, and in many cases to transmute that which experience only gives as contingent into the absolute; as when, experience having told us that two straight lines intersecting and produced, *do*

not meet, the mind superadds this,—that they never *can*.” *

In more recent times, the belief in God has been ascribed, not to *inference*, but to *intuition*,—or to what has been called the *intuitional* as contradistinguished from the *logical consciousness*. In our own country, Mr Morell is the chief expounder of those psychological doctrines on which this theory rests. The “logical consciousness,” or the understanding, is said to give us clear and reflective conceptions of things,—to generalise the particular objects around us,—in a word, to perform the threefold process of simple apprehension, judgment, and reasoning: and the knowledge with which it is conversant is said to be *mediate* and *representative*, instead of being, like that of perception and intuition, *immediate* and *presentative*. The “intuitional consciousness,” or pure Reason, is described as a kind of *intellectual sensibility*, an immediate intuition of objects which are in no respect cognisable by the senses or the understanding, which “brings us face to face with the actual matter, or reality of truth itself,” and is such that “the *material* of truth comes to us as though by a rational instinct, a mental sensibility, an intuitive power.” “Truth, in the intuitional sense, is Being,—Being manifesting itself to the human mind, and gazed upon *immediately* by the eye of the soul.” †

Let us test the distinction, as thus stated, by applying it, in the first instance, to our common secular knowledge, and thereafter extending it to our sacred or spiritual knowledge; for, according to Mr Morell, it is equally applicable to both. It is affirmed, for example, that

* “Edinburgh Review,” No. 193, pp. 26, 33.

† MR MORELL, “Philosophy of Religion,” pp. 36, 127.

perception, as distinguished from mere sensation, is a lower, but still a real, form of the "intuitional consciousness," and that "its great use, as well as peculiarity, is to bring the *subject* and *object* face to face with each other." Be it so: but how is this effected? is it with or without a medium? Mr Morell himself says it is "*through the medium* of the bodily organism," or "by the aid" of its corporeal organism. Sensation is necessarily presupposed, since without it there could be no perception: it is the indispensable medium through which external objects act upon the mind, so as to call its active powers of intuition into play. It appears to us to be of little consequence whether the belief in an external universe be described as the result of a direct *intuition*, or of an immediate and irresistible *inference*, provided only it be carefully remembered, on the one hand, that an external universe could not be logically proved by sensation alone, without an *a priori* principle of reason which must co-operate with it in determining our belief,—and, on the other hand, that it could be as little known by mere intuition, apart from the bodily organism or the sensational consciousness, through the *medium* of which alone can "the subject and object be brought face to face with each other." And so in all other cases it will be found invariably, that there is what Dr Chalmers has happily termed "a certain rudimentary experience," which would not suffice *alone* to account for the whole contents of our beliefs, but which is not less indispensable to their production than the *a priori* principles of reason or laws of thought, which it serves to evoke and call into action. In like manner, when we pass from our secular to our spiritual knowledge, it may be quite true that certain *a priori* principles of reason are necessary to give validity to our conclusions in regard to the being and

perfections of God ; and yet it may be equally true, that these principles *of themselves* would never have conducted us to this belief, without the aid of the natural evidence, or of those *media* through which God makes Himself known. The apostle appears to us, as we have already stated, to have given, in a single pregnant sentence, the whole philosophy of the process by which the human mind is enabled to arrive at a knowledge of God, when he says, “The invisible things of God,—even His eternal power and Godhead,—are clearly seen,”—there is a perception of them which is as sure as any intuition ; yet it is not *immediate*, in the sense of its being acquired *independently of all media*, for how are these things seen ? Not by “gazing direct upon the Infinite,” not by pure intuitional perception, apart from natural evidence ;—but “being *understood by the things which are made.*” The works of nature are not thrown in as a barrier to obstruct, or as a veil to obscure, our vision of God : they are employed as the medium of a Divine manifestation, by means of which that vision may be enjoyed.

It has recently become fashionable in certain quarters to ascribe our knowledge of God, not to *Reason*, but to *Faith*. There are two distinct parties, widely opposed to each other in all respects except this, who seek to resolve all human knowledge into the principle of faith : and it is important to mark the radical difference between their respective systems, since it is apt to be concealed or disguised in consequence of the ambiguous use of the same phraseology by both. The one party may be described as the disciples of a Faith-philosophy of Reason ; the other of a Faith-philosophy of Revelation. The former resolve all our knowledge into the intuitive perceptions of Reason, considered as a kind of

Divine and infallible inspiration ; the latter contend that, in regard at least to all Theological truth, human reason is utterly powerless, and can only arrive at certainty by faith in the Divine testimony, or in the authority of an infallible Church. The two are widely different, yet there are some points of resemblance and agreement betwixt them ; and on this account they have sometimes been classed together, under a wide and sweeping generalization. Thus, Dr Tholuck, defining faith and infidelity in the widest sense of which they are severally susceptible, has said, "Infidelity, in its widest sense, is a disposition which leads us to admit nothing as true which is not the result of *our own reasonings or deduction* : faith, on the other hand, is that disposition which, *influenced either by an outward or inward necessity*, admits as true what is not merely by logical inference rendered certain."* Here, the process of reasoning, or of logical inference and deduction, is contradistinguished from something else which is described as "either an outward or inward necessity,"—*outward*, as in the case of unexceptionable testimony, Divine or human ; and *inward*, arising from the principles of reason itself, the fundamental laws of human thought. These two being placed in contrast, infidelity is said to consist in a disposition to believe only what can be reasoned out or inferred, and to reject alike intuitive and inspired truth ; while faith is described as embracing, along with the results of inference, whatever other truth is taught either by internal or external inspiration. It will be found, however, that each of these definitions includes several distinct states of mind. Infidelity, in the wide sense here attached to the term, can scarcely be said to exist, or even to be possible, in the case of any sane mind ; it cannot, at least, be consequent

* DR THOLUCK, "Princeton Theological Essays," p. 544.

and self-consistent: for, to reason without admitting first principles of reason,—to deduce and infer without admitting laws of thought,—to believe only what is proved by a process of argument, and yet to reject the truths which are necessarily subsumed in every such process, is, as Sir James Mackintosh has ably shown, “not unlike an effort to feel without nerves, or to move without muscles. No man can be allowed to be an opponent in reasoning, who does not set out with admitting all the principles, without the admission of which it is impossible to reason.”* When faith, again, is described as “a disposition which, influenced either by an outward or inward necessity, admits as true what is not merely *by logical inference* rendered certain,” it is evident that two very different states of mind are included under it,—viz., the spontaneous, irresistible, and indestructible belief which is inseparably connected with the healthy exercise of our faculties, and especially with our intuitive perceptions; and the acquired, but not less legitimate, belief which rests on the ground of outward testimony and authority, human or Divine. It is to the latter of these two states of mind, that the term *faith* has been usually applied by Theologians;—but some modern philosophers have extended its meaning so as to make it include the faith which we repose, and must necessarily repose, in our own faculties. Thus Desdout speaks of our belief in an external world as “un pur acte de *foi*.”† The writers who have insisted on the principle of faith, whether in Philosophy or Religion, have sometimes been charged with mysticism, whereas when their statements are explained, and reduced to their exact import, they declare only a

* SIR JAMES MACKINTOSH, “Preliminary Dissertation,—Encyc. Britan.,”
I. 354.

† DESDOUIT, “L’Homme et la Creation,” p. 339.

very plain, but important, truth, viz., that in every department, whether of secular or sacred study, faith is indispensable to the acquisition of Knowledge. But when it is affirmed that our knowledge of the existence and perfections of God is to be ascribed, not to Reason, but to Faith, we are in danger of being misled by a miserable *equivoque*. The language is ambiguous. The term *faith*, in such a connection, may signify either,—the disposition to repose trust in our mental faculties, which is not necessarily opposed to Reason, but only to Scepticism; or the disposition to believe on the testimony or authority of Scripture, which can only be vindicated when Reason is convinced of the claims of Revelation.—A legitimate faith is in no case at variance with the dictates of enlightened reason; and the two should never be contrasted, as rivals or antagonists, since, in point of fact, they are allies in the same sacred cause.—Least of all should they be contradistinguished or disjoined in treating of the fundamental article of Religion,—the existence of God as the Creator and Governor of the world,—for, in so far as regards the *natural evidence* of that truth, there can be no legitimate faith without the exercise of reason in examining, comparing, and judging of the facts, which constitute the substance of that evidence; and in so far as regards the testimony or authority of Scripture, the exercise of reason is equally indispensable. In the exquisite words of *Vinet*, as reported by the lamented John Mackintosh, “*La foi a sa raison, et la raison a sa foi.*” *

We have thus briefly adverted to *three* distinct opinions respecting the psychological origin of our belief in God, which have all been applied to supersede or disparage

*. “The Earnest Student,” by Rev. N. M’Leod, p. 186.

the proof arising from the *natural* evidence in favour of His being and perfections. Sometimes by representing the idea of God as *innate*, and indelibly engraved on every human mind,—sometimes by ascribing our belief in His being to *intuition*, rather than to *inference*,—sometimes by referring it, not to *reason*, but to *faith*,—not a few have attempted to persuade the public mind that any thing like *proof* in such a case is unnecessary or even impossible, and have succeeded, it is to be feared, to a large extent, in creating a prejudice against the study of *the natural evidence*. But if Nature be indeed a volume which contains any information respecting its Author,—if it be true, that “the heavens declare the glory of God,” and that the “invisible things of Him, even his eternal power and Godhead, are clearly seen, being understood by the things that are made,”—it is alike our duty and our privilege to study “the works of the Lord, and to consider the operations of His hands.”—Believing that there is a valid natural evidence for the being and perfection of God, and that it is by the aid of that evidence, in conjunction with the revelations of Scripture, that we can best arrive at sound religious convictions, we propose to examine the *process of proof*, with the view of ascertaining what are the principles, intuition or logical, which are involved in it, and of showing that it is neither less legitimate nor less conclusive than the processes which are employed in any other department of Science.

CHAPTER II.

THE PRINCIPLE OF CAUSALITY.

THE ground-principle of Natural Theology is the fundamental axiom of *Causation*, applied to the explanation of the phenomena of nature. It stands connected, and is, in fact, identical, with the principle on which we attain to the knowledge of other beings, as well as to that of God, and belongs to the general Science of Ontology, which embraces whatever knowledge we can acquire of Being and Causes.

1. Ontology relates to *existence*, and is conversant with three kinds of Being,—Mind, Matter, and God,—or the Soul, the Universe, and the Deity. These Beings are severally made known to us by certain manifestations, signs, or marks, which are recognised by human reason as sufficient to prove their existence. We cannot examine our own consciousness without finding that *some* Ontological conclusions are unavoidable; nor can we consider the language of mankind, which is the mirror of human thought, without seeing that these conclusions have been universal. Account for it as we may, the belief in the existence of Mind, in the existence of Matter, and in the existence of God, has prevailed in all ages, and falls to be ranked among the deepest and most unquestionable convictions of the human mind.

Philosophy may have failed to trace this belief to its source, or to explain its psychological origin, in the mysterious laws and processes of our intellectual nature; but it has equally failed, as often as it has attempted, to undermine its certainty, or to persuade the world that such objects are beyond the limits of possible knowledge. It may have succeeded in showing, that it is impossible to prove *by argument* the existence of external objects, or even of a thinking mind; and so far it may have served a useful purpose, by diverting the attention of inquirers from the useless and unnecessary task of proving what cannot be proved, and can as little be doubted or disbelieved,—what rests on the evidence of intuitive *reason*, not on that of deductive *reasoning*. The faith of mankind in these fundamental truths stood firm amidst the fiercest assaults both of ancient and modern Pyrrhonism, like a rock which breaks and disperses the waves that dash upon it: and all the subtle reasonings of sceptics have convinced no one,—not even the sceptics themselves.

The constant existence and the universal prevalence of such convictions entitle them to a place among the most prominent facts of Psychology: and any system professing to explain the phenomena of human consciousness must be strangely defective, if it either overlooks them altogether, or coolly sets them aside as dreams or illusions, unworthy of philosophical consideration. The convictions exist: they are real, universal, and constant: the whole world must have been dreaming, and only a few Philosophers awake, if now, in the nineteenth century, it be discovered that they are “radically inaccessible to the faculties of man.” Yet such is the discovery which some speculative inquirers profess to have made.*

* M. COMTE, “Cours de la Philosophie Positive,” 6 vols.

MR LEWES, “Biographical History of Philosophy,” 3 vols.

2. Ontology arrives at the knowledge of Beings by means of the principle of *causality*. This principle may be described as a *noumenon* or perception of reason, which is alike spontaneous, universal, and irresistible; it affirms, in absolute terms, that no change can occur, and that nothing can begin to be, without a cause, and such a cause as is adequate to its production. It is applicable, however, to *two* distinct classes of facts,—and hence the distinction between *first and final causes*, and the corresponding branches of Science.

In all inquiries which have for their object the scientific interpretation of nature, the state of the question, when reduced to its ultimate and simplest form, may be said to be,—How can certain appearances or phenomena be accounted for? We contemplate certain phenomena, which are revealed in consciousness or exhibited in nature, and arranging them according to their observed relations of resemblance or diversity in respect to some one or more of their properties, we seek to ascertain some general principle that may serve to explain the facts, and to reduce a multitude of particulars under one comprehensive law. Viewing these phenomena as *effects*, we endeavour to ascertain their *cause*. But in doing so, we are compelled, by our most familiar and frequent experience, to make a distinction between two classes of facts:—we see that some effects are occasioned by physical means, while other effects are produced by intelligent and voluntary action; and hence has arisen the common distinction between Physical and Moral causation, and between *efficient* and *final* causes. When any chemical change or mechanical motion is produced,—as when vegetable blue turns red under the action of an acid, or a stone, left unsupported, falls to the earth,—this is said to be a case of *physical* causation, and the

sequence being found invariable, we express the relation between the antecedent and the consequent in the form of a general law, and say that the action of the acid in the one case, and of gravitation in the other, is the cause of the phenomena in question. In such cases we explain nothing in regard to the nexus or vinculum between the antecedent and consequent; we merely express an invariable relation of sequence,—and the whole question is left open as to the *origin* of that relation, and the *power* by which it was originally established, and is still constantly maintained.—But we are equally familiar with certain other effects, which are produced, and can only be produced, by conscious, intelligent, voluntary agents. When, by an act of volition, I raise my hand, and with an intelligent purpose apply it to the execution of any work of skill, the effect, although produced mediately through the instrumentality of the bodily organ, must be traced ultimately to the mind itself, and affords an example of *moral* as distinguished from mere *physical* causation. The composition or the printing of a book, the execution of a work of art, or the construction of a mechanical instrument, are familiar examples of effects which must presuppose the exertion of intelligence and will, and, as such, fall to be ranked under the same head.

There are certain *signs, marks, or indications* by which we are enabled to recognise the agency of an intelligent, voluntary cause. That the mind naturally infers the existence and operation of a Designing Cause from the appearances of skill and contrivance in the works of nature, is evinced by universal experience: but if we investigate the origin of this inference, we shall find that the mind proceeds on the same kind of evidence which is held alike legitimate and conclusive in ordinary life,

as well as in every department of sound philosophy. With this view, let us inquire, in the first instance, how the mind proceeds in ordinary cases? Let us suppose, with Paley, that a man finds a stone on the heath: he might never think of inquiring how it came there, for possibly it might have been there always: but suppose he finds a watch, or any other regularly constructed instrument, the case is immediately altered; he sees an arrangement of parts, an adjustment of means, which bespeaks an *end* for which it was framed: and even although the end should not be at first apparent, he infers, from what he sees and knows, that the watch must have had a maker, and a maker possessed of intelligence and will. Or, to take another case,—let us suppose, with Mr Baden Powell, that you see a stone strike against an object: you may not know at first to what cause it should be ascribed; it might be raised and carried forward by a gust of wind, or fall off from a neighbouring precipice: but if the same phenomenon were frequently repeated,—if a number of stones were projected in succession, and so as to hit the same mark, you would immediately and irresistibly conclude that they were *aimed* at it, and that the effect was the result of intelligent volition. Suppose now, that in tracing this effect to its cause, you find that the stones are projected thus regularly from a machine, so constructed as to send them forth with the proper amount of force and in the right direction, you find there a mediate physical cause: but this does not suffice to account for the phenomena; on the contrary, it remains to be itself accounted for, and so far from diminishing the evidence of design, it greatly enhances that evidence, since such an adaptation of means to an end is only a more striking indication of skill and power than any that could have arisen from

the mere projection of as many stones by the human hand.*

These familiar examples, taken from the common affairs of life, may suffice to show in what circumstances, and by what indications, we are led to ascribe effects to intelligent, voluntary causes. They prove that a designing cause is naturally inferred in two distinct cases: *First*, where the *end* of any arrangement of means is known and understood,—as when the use of a watch to measure time is perceived; and, *secondly*, where the *end* of the arrangement is not fully discovered, but such an adaptation of parts is perceived as convinces us that *there is an end*, although it be to us unknown,—as when the machine is found to project stones at regular intervals towards a certain point, but for what end we may have no present means of learning. In both cases, there is sufficient evidence of intelligent, voluntary causation; in the first especially, where the end is known, but in the second also, where the means only are considered in their relation to each other. Wherever orderly arrangement exists, it indicates the operation of intelligence in the adaptation of one thing to another, and of many things to one end; and this *order*, *fitness*, or *subserviency* is THE EFFECT, which requires to be accounted for, and which we irresistibly ascribe to intelligent, voluntary agency. It is of the utmost importance that we should take a firm hold of this idea. We must distinguish aright between the *effect*, which indicates the operation of intelligence, and the *object*, in which that effect may be discerned. The orderly arrangement, the regular adjustment which is observable in natural objects, is such, that every mind intuitively believes that *this* at least *is an effect*, and such

* MR BADEN POWELL, "The Connection of Natural and Divine Truth," p. 115.

an effect as can only be ascribed to a Designing Cause, possessing and exercising intelligence and will.

In this way we infer intelligence in the cause from indications of design in the effect, in innumerable instances of human workmanship which come under our notice day by day continually. But not only so,—it is precisely in the same way that we arrive at the knowledge of *the existence of other minds* besides our own; we infer it from *signs* or *indications* of intelligence,—whether such signs as belong to natural language, or such other signs as have been adopted by conventional consent. “No man thinks of asking himself,” says Dr Reid, “what reason he has to believe that his neighbour is a living creature. He would be not a little surprised if another person should ask him so absurd a question; and perhaps could not give any reason which would not equally prove a watch or a puppet to be a living creature. But though you should satisfy him of the weakness of the reasons he gives for his belief, you cannot make him in the least doubtful. This belief stands upon another foundation than that of *reasoning*; and, therefore, whether a man can give good reasons for it or not, it is not in his power to shake it off. Setting aside this natural conviction, I believe the best reason we can give, to prove that other men are living and intelligent, is, that their words and actions indicate like powers of understanding as we are conscious of in ourselves. *The very same argument* applied to the works of nature, leads us to conclude that there is an intelligent Author of nature, and appears equally strong and obvious in the last case as in the first; so that it may be doubted whether men, by the mere exercise of reasoning, might not as soon discover the existence of a Deity, as that *other men* have life and intelligence.” *

* DR REID, “Essays,” Essay VI., c. 5, p. 253.

The distinction between Physical and Voluntary Causation, and the special signs or marks by which the latter may be recognised, will be found to have an important bearing on the evidence of Natural Theology. That distinction, coupled with these signs, is sufficient of itself to warrant us in saying, that it may be quite possible to trace all physical effects ultimately to an intelligent, voluntary cause, while it is demonstrably impossible to account for the marks of design even in material objects by ascribing them to mere physical agency. It may be quite possible to trace all the phenomena of matter, and the very existence of matter itself, to the wisdom and the will of an Almighty First Cause; for the intermediate use of physical agents, or even a long chain of them, between the will of such a Being and the ultimate effect, does not impair,—on the contrary, it may enhance the evidence both of His wisdom and power. All *physical* phenomena may thus be traced to Moral Causation as their ultimate source, and in so far as they exhibit indications of intelligent design they can be ascribed to no other; since it is possible, as experience tells us, to account for certain physical effects by intelligent, voluntary causes, but it is impossible to account for such effects, in so far as they exhibit marks of design, by ascribing them to mere physical agency. And if this be true even of *physical* phenomena, is it not rendered certain by the phenomena of Mind and Conscience?—We cannot, indeed, explain the action of mind on matter, any more than we can explain the action of mere physical agents on one another: but this much is clear in regard to each, that while the two classes of facts agree in so far as they are equally under the great law of Causation, they differ in this, that the antecedent in the one is physical, in the other intelligent and voluntary.

It is enough for the vindication of our cause, if we can establish the *two* following positions : *first*, that all speculative objections are equally applicable to each of the three great branches of Ontology, which relate respectively to the Soul, the Universe, and God ; and, *secondly*, that in applying the principle of causality to the proof of the existence of God, we are following precisely the same method by which we arrive at the knowledge of other existences and causes.—If these two positions be established, it will follow that there is nothing peculiar or anomalous in the process by which we infer from the natural evidence the being and perfections of God ; and that we must either admit its validity, or sink into utter scepticism in regard to the most familiar objects of human knowledge.

The *first* of these positions will scarcely be denied, although there is too much reason to fear that it is often practically forgotten. Men set themselves to perplex and embarrass the question respecting the existence of God by all sorts of subtle, metaphysical objections, without adverting to the fact that the same objections are equally applicable to every question of Ontology, and that, if they had any validity at all, they would be equally conclusive against the certainty of our knowledge of our own existence, or of the existence of an external world, or of living, intelligent beings around us. An argument which proves too much, is justly held to prove nothing ; and the reasons which have been directed to show that we can have no knowledge of God will become quite innocuous, as soon as they are seen to involve principles which would equally serve to undermine our confidence in the existence of any Being whatever, and reduce all our knowledge to a mere succession of dreams. Let any one analyse the process of thought by which he

arrives at the conviction that he is surrounded by other living and intelligent Beings, and endeavour to ascertain and express the grounds on which that conviction rests, and he will find that he is embarrassed by precisely the same difficulties which have been conjured up against his belief in the existence of God, and which have often been urged as if they applied only to Religious truth.—For this reason, we are disposed to regard it as a providential dispensation, preparatory to some grand ultimate result, that the general question of Ontology has been so thoroughly discussed in recent times between the respective advocates of the Dogmatic and Sceptical schools; and we think that any one who entertains doubts respecting the ground-principle of Natural Theology, may have his doubts removed by a careful study of the grounds on which he believes in the existence of an external world, or of other minds besides his own. Let him read the discussions which have taken place, especially in the School of Scottish Psychology, since the days of Locke; and although, in the first instance, he may be conscious of an incipient tendency to scepticism, he will at least be thoroughly convinced that scepticism, to be consistent, must not be partial but complete, and that no greater difficulties attach to the evidence of the Divine existence, than those which belong equally to every branch of Ontology.

The *second* position, which affirms that while the *difficulties* in both cases are the same, the *proof* is also, in all material respects, similar, appears to us to be one of great practical importance. It shows that there is nothing peculiar or anomalous in the evidence of Natural Theology; and that while the *facts* to which it appeals are demonstrable by common experience or scientific study, the *inferences* derived from these facts proceed on principles

which are equally recognised in ordinary life, and applied in every department of science. This important truth has been admirably illustrated by some recent writers. It is very prominently presented in Lord Brougham's "Preliminary Discourse." Its *first* object is "to explain the nature of the evidence upon which Natural Theology rests,—to show that it is a science, the truths of which are discovered by induction, like the truths of Natural and Moral Philosophy,—that it is a branch of science partaking of the nature of each of those great divisions of human knowledge, and not merely closely allied to them both." In prosecution of this design, the Noble Author observes, that the two inquiries—that into the nature and constitution of the universe, and that into the evidence of design which it displays—are not only closely allied one to the other, but are to a very considerable extent identical. "The two paths of investigation for a great part of the way completely coincide. The same induction of facts which leads us to a knowledge of the structure of the eye, and its functions in the animal economy, leads us to the knowledge of its adaptation to the properties of light. . . . But if this is not also a truth in Natural Theology, it is a position from which, by the shortest possible process of reasoning, we arrive at a Theological truth,—namely, that the instrument so successfully performing a given service by means of this curious structure, must have been formed with a knowledge of the properties of light. The position from which so easy a step brings us to this doctrine of Natural Theology was gained by strict induction. Upon the same evidence which all natural science rests on, reposes the knowledge that the eye is an optical instrument: this is a truth common to both Physics and Theology. . . . The process of reasoning is short and easy by which we arrive

at the doctrine more peculiar to Natural Theology—namely, that some power acquainted with and acting upon the knowledge of those laws, fashioned the organ with the intention of having the function performed. *Is not this last process as much one of strict induction as the other?* It is plainly only a generalization of many particular facts; a reasoning from things known to things unknown; an inference of a new or unknown relation from other relations formerly observed and known. . . . Why do we draw this inference? Because all our former *experience* had told us that such machinery is the result of human skill and labour, and that it nowhere grows wild about, or is found in the earth. . . . When we perceive the adaptation of natural objects and operations to a perceived end, and from these infer design in the maker of these objects and superintendent of these operations, why do we draw this conclusion? Because we know by *experience* that if we ourselves desired to accomplish a similar purpose, we should do so by the like adaptation; we know by experience that this is design in us, and that our proceedings are the result of such design; we know that if some of our works were seen by others, who neither were aware of our having made them, nor of the intention with which we made them, they would be right should they, from seeing and examining them, both infer that we had made them, and conjecture why we had made them. The same reasoning, by the help of experience, from what we know to what we cannot know, is manifestly the foundation of the inference, that the members of the body were fashioned for certain uses by a Maker acquainted with their operations, and willing that those uses should be served.”*

Similar views are stated and ably illustrated by Mr

* LORD BROUGHAM, “Discourse,” pp. 7, 28, 43.

Baden Powell, in his valuable work, "The Connection of Natural and Divine Truth, or the Study of the Inductive Philosophy considered as subservient to Theology." "By all thinking inquirers," he says, "the importance of the study of nature, as subservient to the great argument of Natural Theology, is generally admitted; and the evidences which it affords are for the most part such as address themselves powerfully to the conviction even of the least instructed inquirer. And it is not one of the least weighty considerations in favour of the same great inferences, that their evidences are of a nature in some way appreciable by minds of all classes and constitutions, and of all degrees of cultivation. The most cursory survey of Nature inspires reflections of the same high tendency in the most illiterate, as the profoundest investigation does in the most philosophical. . . . They are, in fact, no more than extensions of the *very same* elements of thought, which seem implanted in our nature; by which all our acquaintance with sensible objects is, in the first instance, acquired; and by which we are continually and unconsciously storing our minds with that knowledge which is so necessary for all the purposes of our existence;—those natural persuasions upon which all uniform convictions and all consistent conduct are based, and without which life would be a continued state of infancy. . . . It may be truly said, that the sublime conclusions of Natural Theology, in their general and popular acceptation, are obvious on the most cursory survey of the natural world, and at once convincing, even to the most uninstructed apprehension. Unless miserably blinded by prejudice, or incapacitated by moral perversion, the most untaught mind instantly recognises the evidences of the Divine existence and attributes, and unhesitatingly regards the visible

order and adaptations of the natural world as no other than the created manifestations of the Divine perfections." *

Testimonies to the same purport might be multiplied indefinitely: but we shall only further quote the striking remarks of Dr Thomas Brown. In placing the belief of *efficiency* among first or intuitive principles, "we place it on a foundation as strong as that on which we suppose our belief of an external world, and even of our own identity, to rest. What daring Atheist is he who has ever truly disbelieved the existence of himself and others? For it is he alone who can say, with corresponding argument, that he is an Atheist, because there is no relation of cause and effect. . . . Even he who professes to discover no traces of the designs of a Creator is himself a designer every moment; and little reason is there, therefore, to fear the Atheistic effects of any doctrine which does not prevent us, if the theological argument be well stated, from having *as much belief in the existence of God*, as we have in *our own continued existence*, or in *the existence of the friend* who may be sitting beside us, or in the warmth of fire and the coldness of snow." †

Such appears to be the *mental process* by which we rise from the phenomena and laws of nature, to a belief in the being, perfections, and providence of God. The process of thought is short and simple, and bears little resemblance to the protracted series of deductive reasonings with which we are familiar in the study of Geometry. It resembles rather the rapid and spontaneous intuition by which we rise, from our own experience, to the belief of an external world, and of the existence of other minds

* REV. BADEN POWELL, "The Connection," pp. 2, 35, 118.

† DR THOMAS BROWN, "Inquiry into the Relation of Cause and Effect," pp. 377, 380.

besides our own. Still, it is not a direct and immediate intuition of God, considered merely as infinite or absolute Being, nor is it independent of evidence. It is a short and simple, but a real and legitimate, process of Induction. From our own experience we learn what are the characteristic signs and marks of intelligent, voluntary causation; we discern these signs everywhere in the works of Nature; and we infer that it must be the product of omniscient wisdom and almighty power.

Before quitting this topic, we may briefly advert to *two* distinct cavils or objections which have sometimes been urged with the view of shaking our confidence in the validity of this process of proof.

The first is generally couched in a statement to this effect—that when we found on the axiom, “Every *effect* must have a cause, and marks of design in the *effect* indicate a designing cause,” we are justly chargeable with a gross *petitio principii*, since we assume that nature is an effect, the very point which requires to be proved. This cavil,—for it is nothing else,—is directed not against the substance of the proof, but against the mere method of stating it; and it may be effectually neutralised by the use of other, and perhaps more appropriate terms. Instead of saying that “every effect must have a cause,” we have only to say that “things cannot begin to exist, nor undergo any change, without a cause that hath power to produce that change,” and instead of saying that “marks of design in the effect indicate a designing cause,” we have only to say that “*order combined with manifest utility* indicates an intelligent, voluntary cause,” and there remains not even the shadow of a *petitio*. “It will be found,” says Archbishop Whately, “that every conclusion is deduced, in reality, from two other propositions,—thence called *premises*; for though one of these may be, and

commonly is, suppressed, it must nevertheless be understood as admitted; as may easily be made evident by supposing the denial of the suppressed premiss, which will at once invalidate the argument. For example, if any one, from perceiving that "the world exhibits marks of design," infers that "it must have had an intelligent author,"—though he may not be aware in his own mind of the existence of any other premiss, he will readily understand, if it be *denied* that "whatever exhibits marks of design must have had an intelligent author," that the affirmative of that proposition is necessary to the validity of the argument. An argument thus stated regularly and at full length is called a *syllogism*: when one of the premises is suppressed (which for brevity's sake it usually is), the argument is called an *enthymeme*. And it may be worth while to remark, that when the argument is in this state, the objections of an opponent are (or rather appear to be) of two kinds, viz., either objections to the *assertion* itself, or objections to its *force* as an argument; *e.g.*, in the above instance, an Atheist may be conceived either denying that the world *does* exhibit marks of design, or denying that it *follows* from thence that it had an intelligent author. Now, it is important to keep in mind that the only difference in the two cases is, that in the one the *expressed* premiss is denied; in the other the *suppressed*; for the force as an argument of either premiss depends on the other premiss: if both be admitted, the conclusion legitimately connected with them cannot be denied." *

In like manner, the sagacious Dr Reid thus analyses the proof:—"The argument from final causes, when reduced to a syllogism, has these two premises: *first*, that design and intelligence in the cause may, with certainty,

* ARCHBISHOP WHATELY, "Elements of Logic," p. 24.

be inferred from marks or signs of it in the effect. This is the *major* proposition of the argument; the *second*, which we call the *minor* proposition, is, that there are, in fact, the clearest marks of design and wisdom in the works of nature; and the *conclusion* is, that the works of nature are the effects of a wise and intelligent cause. One must either assent to the conclusion, or deny one or other of the premises. Those among the ancients who denied a God or a Providence, seem to me to have yielded the *major* proposition, and to have denied the *minor*, conceiving that there are *not* in the constitution of things such marks of wise contrivance as are sufficient to put the conclusion beyond doubt. The gradual advancement in the knowledge of nature hath put this opinion entirely out of countenance. . . . Those, therefore, of later times, who are dissatisfied with this argument from final causes, have quitted the stronghold of the ancient Atheists, which had become untenable, and have chosen rather to make a defence against the *major* proposition."

The argument, as thus stated, is not liable to the charge of including in it any thing like a *petitio principii*. We must distinguish between *natural objects*, and the *marks of design* which they exhibit.—The latter are undeniably effects of a designing cause,—and they are applied to prove that the former also are *effects*. We do not *assume* that nature is an effect, we *infer* it from these signs. We can demonstrate, historically, as we have already seen, the comparatively recent origin of all the existing tribes of organised beings: but independently of that proof, there is enough in the *marks of design* to warrant the conclusion that *the objects* in which they are discerned, are effects of an intelligent, voluntary cause.

The *second* objection to the validity of the proof is the

well-known argument of Hume, which is founded on the idea that the world is *a singular effect*. The general purport of his reasonings may be thus stated: that we want the experience which is necessary to give validity to the argument from marks of design,—that we have never witnessed the creation of a world,—and, therefore, can have no ground of *analogy* on which to proceed in arriving at our conclusion. He does not deny,—on the contrary he admits, some of the great principles which are usually founded on in Natural Theology: he admits the uniformity of nature or the regularity of its sequences: he admits that if we have once observed the conjunction between the two terms of a sequence, the appearance of the one would warrant us in inferring the other, without our actually seeing it. He insists, however, that we cannot proceed in any case without a previous experience of *both* terms of the sequence, such as enables us to ascertain what the sequence really is. In the case of a *watch*, we may have had such experience; we may have seen not only the watch, but the watch making; and, having seen this once, we may infer a maker in every instance in which a watch is produced: but in the case of a *world*, we have had no such experience; it is “a singular effect” —and we cannot, therefore, legitimately infer a Creator from any marks of design in nature, because, in this case, we have no analogy to guide us, and no experience to tell us what the two terms of the sequence are. He reasons thus:—“When two species of objects have always been observed to be conjoined together, I can *infer* by custom the existence of one whenever I see the existence of the other, and this I call an argument from experience. But how this argument can have place where the objects, as in the present case, are single, individual, without parallel, or specificresemblance, may be difficult to explain.

And will any man tell me with a serious countenance that an orderly universe must arise from some thought and art, like the human, because we have *experience* of it? To ascertain this reasoning, it were requisite that we had experience of the *origin of worlds*; and it is not sufficient surely that we have seen ships and cities arise from human art and contrivance.” *

The argument, then, amounts in substance to this:—that if we had ever seen a *world made*, we might have inferred a Creator, whenever any new world appeared; but as the world is a singular effect, and we have had no experience of the antecedent in any other case, we cannot legitimately infer from its orderly arrangements the existence of a Designing Cause.

But in what sense is the world a *singular effect*? It is *singular* only in a sense which has no bearing on our argument, and it is *not singular* in the only respect which is necessary to bring it within the legitimate province of Induction. We must carefully distinguish between what is circumstantial, and what is essential, in an established order of sequence. There may be many works of art, differing in several respects from each other, and yet all agreeing in this, that, by the symmetry and arrangement of their parts, they exhibit indications of design. In such cases, the proper consequent is, not that which is singular or peculiar to each, but that which is common to all; and the proper antecedent is the designing mind which alone accounts for such indications. In every instance there may be something that is *singular*, but there is also something that is *not singular*: and this is the point to which our main attention should be given. The orderly arrangement of parts, and their adaptation

* DAVID HUME, “Dialogues on Natural Religion,” p. 65. The same argument is employed by MR HOLYOAKE, “Paley Refuted,” pp. 14, 28.

to any end, whatever that end may be, is the essential element; and, this being one term of the sequence, we infer a designing mind as the other,—*first*, because we have no experience of such a consequent from any other than a designing cause; and, *secondly*, because we have experience of *like* consequents being produced by intelligence and will. There is no novelty and no singularity in this precise effect, although there may be both novelty and singularity in the form in which it is exhibited to our notice.

When we thus confine our view to the essential nature of the consequent, and omit whatever is extraneous or circumstantial, it is not necessary, as Hume supposes, that we should have actual experience by observation both of the *watch* and the *watch making*, before we can ascribe it to an intelligent maker. We may never, in fact, have witnessed the production of that or of any other complicated instrument: yet we know from our own experience, and perhaps from our own efforts, on some inferior scale and with ruder materials, that a designing mind, and that only, *can* adapt means to ends, and arrange matter in forms fitted to serve an intelligible purpose: and hence the man who never saw the first term of the sequence, or the antecedent in actual operation, infers it, notwithstanding, on the instant when he sees a telescope or any other work of human art; and does so legitimately, because he proceeds on the analogy of his own experience in cases of a *like* kind. The product suggests the producer, although we have never witnessed the production; and this just because, while the product may be in certain respects singular or new, it has no novelty and no singularity in *that respect which alone is essential to the inference*,—it has the common quality of design, which, in all cases, warrants the inference of a designing cause.

According to Hume's theory, if carried out to the full limits of its legitimate application, we might be warranted to infer, from our observation of one watch being made, the existence of a watchmaker in every other *watch* that may come under our knowledge; but we would not be warranted in drawing a similar inference in regard to a telescope, or any other instrument of somewhat different construction, until we had an opportunity of witnessing the fabrication of one at least. And in regard to the world, the same theory might warrant us in concluding that other worlds were made by God if we had witnessed the creation of one, but only, it would seem, if they had all the same resemblance to each other, as two or more watches have,—that is to say, a resemblance in their *specific properties*, as well as in their *generic character*, as works of art and design. Might he not have proceeded somewhat further? might he not have insisted that many worlds would be insufficient for our purpose, for all the worlds that can be would make up but one universe, and this universe is “a singular effect?”

The truth is, that the only consequent with which we have to do in this argument is, *order, arrangement, adaptation, subserviency to an end*; and the only antecedent, *intelligence, volition, and power*. Of the relation between the two we can judge from the analogy of our experience, even where we have had no opportunity of witnessing the actual operation of the cause, or the visible production of the effect; we proceed on the *generic resemblance* between different cases, and not only infer the same cause from the same consequent, but a *similar* cause from *like* consequents, in the most frequent and familiar processes of inductive inference. Who would ever dream of saying, on first seeing an orrery or a microscope, “This is to me a singular effect; I never saw one before, and I

must see one actually made before I can believe that it had a maker,"—would we not feel that the *generic character* of the instrument, as a work of art, indicating skilful contrivance and the adaptation of means to an end, is sufficient, on the ground of a well-ascertained analogy, to warrant us in ascribing it to an intelligent artificer?

Sir Gilbert Elliot, writing to Hume himself, exposed the radical fallacy of his argument:—"Admitting, for once, that experience is the only source of our knowledge, I cannot see how it follows that, to enable us to infer a *similar* cause, the effects must not only be similar, but exactly and precisely so. Will not experience authorise me to conclude that a machine or piece of mechanism was produced by human art, unless I have happened previously to see a machine or piece of mechanism exactly of the same sort? Point out, for instance, the contrivance and end of a watch to a peasant, who had never before seen any thing more curious than the coarsest instruments of husbandry, will he not immediately conclude that this watch is an effect produced by human art and design? And I would still farther ask, does a spade or a plough much more resemble a watch than a watch does an organised animal? The result of our whole experience,—if experience indeed be the only principle,—seems rather to amount to this:—There are but *two* ways in which we have ever observed the different parcels of matter to be thrown together,—either at random, or with design and purpose. By the first we have never seen produced a regular complicated effect, corresponding to a certain end; by the second, we uniformly have. If, then, the works of nature, and the productions of man, resemble each other in this *one general characteristic*, will not even experience sufficiently

warrant us to ascribe to both a similar though proportionable cause? ” *

Dr Chalmers has offered a still more elaborate argument in reply to Hume ; † but enough has been said to show that the cause of Theism has nothing to fear from the subtle sophistry of that ingenious sceptic.

* MR DUGALD STEWART, “ Preliminary Dissertation,” Notes, p. 287.

† DR CHALMERS, “ Works,” I. 127.

CHAPTER III.

THE DOCTRINE OF FINAL CAUSES.

M. COMTE, and the disciples of the Positive Philosophy, repudiate the study of *causes*, whether efficient or final, as “radically inaccessible to the human faculties.” In doing so, they sometimes refer to the authority of the founders of the two great schools of Modern Philosophy, —Bacon and Descartes. The father of the Inductive School had said, that “the study of final causes is barren, and, like a virgin consecrated to God, bears nothing,”—and without caring to inquire *in what respects* he held it to be barren, many have supposed that he meant to exclude it altogether. No conclusion could be more unwarrantable or unjust. His own words imply that his statement is to be received with an important qualification. He speaks of the study as “barren” with reference to physical discovery or the increase of mere secular knowledge; but he speaks of it also as “a virgin consecrated to God,” intimating its peculiar use in connection with spiritual and theological truth. There could be no meaning in the latter part of the statement, were it supposed that the study of final causes could be of no use whatever, unless, indeed, it were regarded as a sarcasm against Religion itself. But the whole tenor of Bacon’s writings, notwithstanding the unworthy insinuations of

Atkinson and Martineau, is sufficient to exonerate him from such a suspicion. He not only avows his belief in God, but expressly refers to the volume of nature as affording invincible evidence of that truth:—"I had rather believe all the fables in the Legends and the Talmud and the Koran, than that this universal frame is without a Mind; and therefore God never wrought a miracle to convince Atheism, because His *ordinary works* convince it. It is true that a little philosophy inclineth man's mind to Atheism, but depth in philosophy bringeth men's minds about to Religion; for, while the mind of man looketh upon second causes scattered, it may sometimes rest in them and go no farther, but, when it beholdeth the chain of them confederate and linked together, it must needs fly to Providence and the Deity." It is no useless or unmeaning function, then, that is ascribed by Bacon to the study of final causes when he compares it to "a virgin consecrated to God."

He cannot be supposed, therefore, to have regarded it as "barren" in respect to Theological truth, but only in respect to Physical discovery. From other parts of his writings we learn that, in his opinion, the study of physical causes had been too much blended with teleological speculation, and that the progress of Inductive Physics was in danger of being retarded by the premature discussion of the final causes of certain phenomena, while as yet the physical facts and laws had not been sufficiently ascertained. He explains his views in regard to the right relation between the two, when he says,—“Not because those final causes are not true, or not worthy to be inquired after, *being kept within their own province*; but because their excursions into the limits of physical causes sheds a vastness and solitude in that track. For otherwise, keeping their precincts

and borders, men are extremely deceived if they think there is an enmity or repugnance at all between them." In short, it has been conclusively shown by Mr Stewart, Lord Brougham, and Dr Whewell, that he objected, not to the study of Final Causes, but to its improper and pernicious admixture with that of Physical facts and laws.*

To this extent we agree with the opinion of Bacon. It is indispensable to a correct, scientific Teleology, that the fact or law, whether physical, mental, or moral, from which any conclusion is to be drawn, should, in the first instance, be ascertained on its own peculiar and independent evidence; and it is only after it has been so ascertained that it can furnish any valid proof of design or contrivance. The process by which a fact is established, or a law inferred, is distinct from that by which the final cause is discerned, and in the order of nature the latter is subsequent to the former. Any indiscriminate blending of the two might introduce confusion into science, and obscure, instead of illustrating, the evidence of Theology. It does not follow, however, that the doctrine of Final Causes, when it has been established, may not be at once a useful guide, and a powerful stimulus, in the prosecution even of physical research. Many of the greatest discoveries of Modern Science have been suggested by this doctrine. The Honourable Mr Boyle, who agrees with Bacon in affirming "that the Naturalist should not suffer the search or the discovery of a *final cause* of Nature's works to make him undervalue or neglect the studious indagation of their *efficient causes*,"† does not on that

* MR DUGALD STEWART, "Elements," II. 478.

LORD BROUGHAM, "Discourse," p. 138.

DR WHEWELL, "Philosophy of Inductive Sciences," II. 79.

† HON. R. BOYLE, "Theolog. Works," II. 276, octavo edition.

account run to the opposite extreme, or deny that the doctrine of final causes may be a useful guide as well as stimulus in physical inquiry. On the contrary he tells us that the discovery of the *circulation of the blood* was first suggested by it. "I remember," says he, "that when I asked our famous Harvey, in the only discourse I had with him (which was but a little while before he died), what were the things which induced him to think of a circulation of the blood? he answered me, that when he took notice that the valves in the veins of so many parts of the body were so placed that they gave free passage to the blood towards the heart, but opposed the passage of the venal blood the contrary way, he was invited to think that so provident a cause as nature had not placed so many valves *without design*; and no design seemed more probable than that, since the blood could not well, because of the interposing valves, be sent by the veins to the limbs, it should be sent through the arteries, and return through the veins, whose valves did not oppose its course that way."* Nor is this the only instance of the same kind. "There is one idea," says Dr Whewell, "which the researches of the Physiologist and the Anatomist so constantly force upon him, that he cannot help *assuming it as one of the guides* of his speculation; I mean, the idea of a *purpose*, or, as it is called in Aristotelian phrase, a *final cause*, in the arrangements of the animal frame. This conviction prevails so steadily among Anatomists, that even when the use of any part is altogether unknown, it is still taken for granted that it has *some use*. The development of this conviction,—of a *purpose* in the parts of animals, of a *function* to which each portion of the organization is subservient,—contributed greatly to the progress of Physiology: for it constantly urged men for—

* MR BOYLE, "Works," IV. p. 539, folio edition.

ward in their researches respecting each organ, till some definite view of its purpose was obtained.”* These remarks may suffice to explain in what sense, and with what limitations, the statement of Bacon may still be understood and maintained.

It may seem to be more difficult to dispose of the authority of Descartes, as an avowed opponent of the doctrine of Final Causes. He more than once denounces it in express terms, and assigns his reason for doing so. Thus, in his *fourth* Meditation, he says, “Considering this with attention, it came into my thoughts that I should not wonder if I be unable to comprehend *why* God has made what He has made; and that it is not necessary on that account to doubt His existence, because I see by experience, perhaps, many other things which exist, although I cannot comprehend *for what reason*, nor *how* God made them: for, knowing already that my nature is extremely feeble and limited, and that, on the contrary, that of God is immense, incomprehensible, and infinite, I have no more any difficulty in acknowledging that there is an infinity of things within His power, whose causes surpass the powers of my mind. And this single reason is sufficient to convince me that all that kind of causes which are usually derived from *the end* is of no use in things physical or natural; for it does not appear to me that I can without temerity investigate and seek to discover the impenetrable designs of God.”†

Yet there is a sense in which Descartes may be said to have acknowledged the use of Final Causes, although not under that name, and the value of the natural evidence for the being and perfections of God, although he made

* DR WHEWELL'S "Indications of a Creator," p. 20.

† DESCARTES, "Œuvres," Paris, 1844, containing the "Meditations," with Objections and Answers, p. 94.

no use of it in any one of his "Demonstrations." It will be observed that in the above statement there is an important limitation—he speaks of final causes as of no use in things *physical and natural*; and thus far he may be said to agree with Bacon. But he seems to go further when he assigns, as his reason for what he had said, that he could not, *without presumption*, "seek to discover the impenetrable ends of God:" yet when Gassendi reminded him, that however true his opinion might be with reference to Physics, "it could not be adopted in treating of God without rejecting the principal argument by which His wisdom, His power, His providence, and even His existence can be proved by natural reason," and that although it might be admitted, even with reference to God, "if he meant to speak only of *those ends* which God wills to be concealed, and not to be inquired into, yet it must not be extended to those which He has exposed as it were to the view of the whole world, which are discovered without much labour, and which are such as yield the highest praise to God as their Author;"* he replied, not by repudiating the natural evidence as inept or inconclusive, but by offering what appears to be a mere verbal criticism. "All that you have referred to the *final*, ought to be referred to the *efficient*, cause; thus, from that admirable use of each part in plants and animals, &c., it is right to admire the hand of God who made them, and to know and glorify the Maker by the inspection of His works, but not to divine for what end He hath created each thing. And although in the matter of *morals*, in which it is often permitted to make use of conjectures, it may sometimes be a pious thing to consider what end we may suppose God to contemplate in

* DESCARTES, "Œuvres," Paris, 1844, containing the "Meditations," with Objections and Answers, p. 300.

the government of the universe, certainly in *physics*, where every thing must rest on solid reasons, this would be inept. And we cannot pretend that there are some ends more easy to be discovered than others; for they are all equally concealed in the inscrutable abyss of His wisdom." * He does not absolutely deny, therefore,—on the contrary he admits, the existence of a natural evidence in the works of creation, and the duty of knowing and glorifying their Maker by an inspection of them: but he thinks it would be presumptuous to divine for what end He hath created any thing, or to seek to fathom the inscrutable abyss of His wisdom.—There is a mixture of truth and error in his statements, and the two are admirably discriminated by Mr Boyle, in a dissertation which was designed as an antidote to the "Meditations" of Descartes,† where, after stating "a fourfold distinction of Final Causes," he says, "To proceed to Cartesius's assertion,—that it is presumption in man to investigate *the ends* God proposed in making His creatures. There are two ways a man may know the ends of God in His visible works; viz., either he may know *some* of His ends, or *all* of them. He that pretends to know them in the latter sense must be guilty of presumption and no less folly, since He is Omniscient; but to pretend to know them in the former is rather a duty: for some things are so curiously contrived and fitted for certain operations and uses, that it seems blindness not to discover that, though they might be designed for higher uses also, yet *this* was intended. As he that considers the structure of the eye, and how the parts are adapted to make up the organ of vision, must needs

* DESCARTES, "Œuvres," Paris, 1844, containing the "Meditations," with Objections and Answers, p. 355.

† HON. R. BOYLE, "Disquisition about the Final Causes of Natural Things," Theol. Works, II. 211.

conclude it was designed for man to see with. . . . And I cannot see how it either contributes to magnify God's wisdom, or how we show our veneration, to deny God *that end* in framing the eyes which we see them so aptly fitted for, and which we see is made of them. . . . As to that other assertion of Descartes, that 'it cannot be said that *some* of God's ends are more manifest than others, but that all of them lie equally hid in the abyss of the Divine wisdom,' it cannot be allowed, since the *uses* of many of His creatures are so obvious that the vulgar have always observed and acknowledged them."

The distinction between the ends which we *can*, and the ends which we *cannot*, know, is of the highest necessity and importance in Theology. We have already had occasion to remark, when comparing the instances selected by Dr Paley and Mr Powell respectively, that there are *two* cases in which design may be inferred: in the *first* both the means and the end are known, as in Paley's example of a watch,—in the *second*, the end may be unknown and perhaps undiscoverable, while the appearances are such as to impress us with the conviction that there *is* an end, contemplated by an agent possessing both intelligence and will, as in Powell's example of a machine projecting stones. Both cases occur in the works of Nature. There are some in which the means and the end are equally known, and so clearly seen to be connected, as not only to indicate *a* purpose, but also to explain *what* that purpose is: there are others in which certain phenomena are so related to each other as to suggest the idea of order and design, while the end is concealed from our view, or at least remains as yet undiscovered. If this distinction be clearly discerned, when we compare merely different classes of *particular* cases, it may be expected to be more sensibly felt when we rise to

the more general question as to the grand *ultimate end* of God in the creation and government of the world. Here unquestionably there would be *presumption* in saying that we can fathom the counsels of the Omniscient mind; for not only in the light of reason, but even in the super-added light of Revelation, "how unsearchable are His judgments, and His ways past finding out!" "By His Spirit He hath garnished the heavens; his hand hath formed the crooked serpent. Lo! these are *parts* of His ways, but how little a portion is heard of Him? the thunder of His power who can understand?" "Thy way is in the sea, and thy path in the great waters, and thy footsteps are not known."* We cannot help thinking that it was chiefly to the grand ultimate ends of God in the creation and government of the Universe that Descartes meant to refer when he spoke of the presumption of judging of *final causes*,—and his clear perception of a *part* of the truth, viz., the inscrutability of the Divine purposes, combined with a grossly erroneous view of the end ascribed to Him, when He is said to have made all things for *His own glory*, led him to overlook the fact that, mysterious and incomprehensible as many of the counsels of God must necessarily be to every finite mind, there are nevertheless myriads of particular cases in which both the means and the end are clearly known, and myriads more in which, if *the* end be undiscovered, the order and regularity of the phenomena indicate at least that there is *an* end to be accomplished by such means. It may be truly said that, with reference to the study of final causes, we are placed very much in the same position as that which we occupy with reference to the knowledge of Providential events, and even of Revealed truth. With reference to the events of Providence, we find that there

* Romans xi. 33; Job xxvi. 14; Psalm lxxvii. 19.

is as much regularity, arising from the operation of known laws, as is sufficient to encourage and reward *diligence* in the use of means, and yet as much inconstancy or at least uncertainty, arising from the multiplicity of causes many of which are unknown, as is fitted to impress us with a sense of *dependence*. With reference to the truths of Revealed Religion, enough may be known to secure our welfare and direct our practice, but much remains that is wrapped in a veil of impenetrable mystery. And so, with reference to the study of final causes, we know enough to impress us with a sense of the wisdom, power, and goodness of God, while we should be chargeable with impious presumption did we pretend to "find out the Almighty unto perfection."

Any one who has studied the "Disquisition" of Boyle, in connection with the "Meditations" of Descartes, will find little difficulty in disposing of whatever has appeared more recently on the same subject. But we may briefly advert in conclusion to a recent work, of some pretension, from the pen of a Clergyman of the Church of England.* It is a formal attempt to refute the argument of Paley's Natural Theology, neither less strenuous nor more successful than that of Mr Holyoake in his "Paley Refuted in his own words." But there is a remarkable difference between the two writers. The one is a Christian Clergyman, the other a Secular lecturer; the one is a professed, and, we have no doubt, a sincere believer in God and the Bible, the other an avowed Atheist. They agree only in this,—that both dispute the validity of the proof from *final causes*, and affirm that the argument from design is a mere fallacy,—a verbal sophism.

Mr Irons does not, indeed, deny that "there is design in nature, and that God is the author of it," but holds

* REV. W. I. IRONS, "On the Whole Doctrine of Final Causes."

that it cannot be discerned by human reason without the light of Revelation, and that "the believer in Revelation alone has any right to entertain the doctrine of design." The whole object of his book is "to set forth, in the clearest manner, that though Atheism is an impossibility, and irreligion misery, yet that man, by his unassisted natural powers, could never have certainly determined any one truth of theology or religion." What is the precise import of this statement? Does it mean that while "there *is* design in nature, and God is the author of it," yet man is unable, by his unassisted natural powers, to discern that design, or to deduce from it any valid proof of the being and perfections of God? Then how, on that supposition, can it be said that "Atheism is an impossibility?" or that "the believer in Revelation alone has any right to entertain the doctrine of design?" Without a Revelation, Atheism would seem, on his showing, to be inevitable, and, of course, innocent: and even with a Revelation, it might seem difficult to say how the believer himself could draw *from the works* of nature any proof of the Divine Being and Perfections; so that his belief must rest *solely* on the ground of authority, unless, indeed, Revelation be supposed to confer a new faculty of intellectual perception and inference, which enables man to discern design, always existing in nature but hitherto undiscovered, and to deduce conclusions from it which were undiscoverable before.—Or does the statement mean merely, that "while there *is* design in nature, and God is the author of it," man never did, *in point of fact*, make the discovery of God's Being from the study of His works, without the concurrent light of Revelation, either shining direct on those to whom it was vouchsafed, or transmitted partially through the obscure medium of oral tradition? Then how, on this

supposition, can his doctrine be supposed to be at variance with that of Paley and all other Christian writers, who have unanimously concurred in the belief of a primeval Revelation, unless it be intended to affirm further, that man has no capacity to infer from the works of nature the existence of its Author, even after a Revelation has been given?

Mr Irons seems to labour under a superfluous and somewhat morbid jealousy for the honour of Revelation. In so far as the *a posteriori* argument is concerned, he would teach Reason to know and to keep its own place. "I would have the Deist left to his own Theological resources, that the futility of his attempts might show him the necessity of Revelation. I would prove that a strictly Natural Theology is unattainable; so that all men who feel that some Theology is indispensable may be unable to avoid the conclusion in favour of Revelation." But can "the necessity of Revelation" be established on no better ground than that which may be found amidst the crumbling ruins of "the argument from design?" or if that argument be inept and inconclusive, to what higher or surer evidence can Revelation itself appeal? Perhaps there may be a quicker, a more intuitive perception, which supersedes argument in *both* cases, "an act of pure reason,"* which is *a priori*, and, as such, exclusive of all reasoning: and for this reason, apparently, Mr Irons undertakes to "vindicate the position that the truths of Revelation are eternal and necessary truths of Reason, spiritually discerned, *i. e.*, not cognisable by sense."—Suppose they were,—which we are very far, however, from admitting,—what then? why, that the existence, providence, and government of God, which are revealed in Scripture, ought to be regarded as

* W. I. IRONS, "Dissertation," p. 193.

“eternal and necessary truths of *Reason*,” in common, however, with the more peculiar doctrines of Revelation,—*mediation, atonement, regeneration, repentance, and faith*; and thus the domain of *Reason*, so far from being curtailed, is extended, so as to embrace every thing that is usually supposed to rest on the authority of Revelation!

The Atheist gladly accepts, and freely quotes, his testimony *against* Natural Theology, but leaves him in undisputed possession of the “eternal and necessary truths of Reason,—not cognisable by sense.”*

* HOLYOAKE, “Paley Refuted,” p. 37.

CHAPTER IV.

KANT'S CRITIQUE ON THE PROOFS OF NATURAL THEOLOGY.

IN his "Critique of Pure Reason," Kant has offered a general review of the various *methods* of proving the existence and perfections of God, and his own estimate of the merits and defects of each. Having stated in an earlier part of his work, that there are only *three* possible suppositions in regard to the world's existence, viz., that it exists either—through a blind accident,—or through an internal necessity,—or through an external cause: he examines the several processes which have been employed to prove the *last* of these suppositions, and divides them into *three* distinct classes:—"There are only *three proofs* possible, from *speculative reason*, as to the existence of God. All the ways that may be struck out with this view begin, either from determined existence, and the thereby acknowledged particular property of our sensible world, and ascend from this, according to the law of causality, to the highest Being out of the world;—or, they only lay undetermined experience, that is, some existence, empirically at the foundation;—or, they make abstraction finally of all experience, and conclude wholly *a priori*, from mere conceptions, as to the existence of a highest cause. The *first* proof is the Physico-theological, the *second* the Cosmological, the *third* the Ontological proof.

More than these there are not, and even more there cannot be.”*

We are not sure that these terms, if left unexplained, would convey to an English reader the precise ideas which they were intended to denote. The *physico-theological proof*, which proceeds from existence considered as determined, and takes cognisance of the particular properties of things, might be equally denoted by the term *cosmological*, which is here applied exclusively to the proof arising from the bare fact of existence, assumed as furnished by experience; while the *ontological* is restricted to the proof arising from existence considered not as a *fact* of experience, but as a mere conception of the mind. The *Cosmological*,—if, as its name imports, it relates to the *Cosmos* or orderly structure of the world, and not to mere *entity*, whether considered as a fact or as a conception,—would seem naturally to include the *Physico-theological*: while the *Ontological* might include every proof arising from mere existence, whether as ascertained by experience, or as conceived by the mind. In our Statement of the Proof, we proceeded, in the first instance, on the bare fact of existence considered as *undetermined*, that is, without reference to the particular properties by which it is characterised,—not troubling ourselves, however, with the distinction, so essential to the system of Kant, between existence as an objective reality and as a mere conception of the mind; and we endeavoured to ascertain how far this idea or fact could carry us, with the help of the law of causality, towards a solution of the great problem of the universe.—We then advanced to the consideration of existence as *determined* and possessed of various properties, by which it becomes known to the human mind,—not confining ourselves, however, as Kant

* KANT'S "Critique of Pure Reason," pp. 450, 475.

seems to think the Physico-theological proof should confine us, to the "particular properties of our *sensible* world," but embracing all the phenomena of Nature, and including in one comprehensive survey the facts and laws of the *material*, the *mental*, and the *moral* worlds. Kant excludes from the Physico-theological proof many of the most important phenomena of nature, because he is treating only of the proofs from *speculative reason*, and reserves all others for future treatment in connection with the proof from *practical reason*, on which he mainly relies. —We make no account, in connection with this argument, of the distinction between the Speculative and the Practical Reason; because we regard the phenomena of the material, mental, and moral worlds, as being all equally the objects of the same truth-organ, and as all contributing, although in different ways and in different degrees, to swell the amount of evidence in favour of the being and perfections of God.

Bearing in mind, however, Kant's definition of his own terms, let us attend to the critical estimate which he has formed of each of the three proofs, and which leads him to conclude that, on the ground of *speculative reason*, it is impossible to prove the existence of God.

What he calls the Ontological proof,—that, viz., which "makes abstraction of all experience, and concludes wholly *a priori* from *mere conceptions*," and which is exemplified in the writings of Descartes,—is thus criticised:—"The conception of an absolutely necessary Being is a pure conception of reason; that is, it is a mere idea, whose objective reality is far from being shown from this that reason stands in need of it. . . . The conclusion from a given *existence* in general to an absolutely necessary Being, seems to be stringent and correct; yet from mere *conceptions* we cannot infer the existence

of a necessary Being. A necessary Being is one, the non-being of which is impossible. . . . I cannot make to myself the least conception of a thing which, if it were annulled, with all its predicates, would leave behind a contradiction; and without a contradiction, I have, by means of *mere pure conceptions a priori*, no mark of impossibility. . . . There is, therefore, in the so celebrated Ontological (Cartesian) proof of the existence of a supreme Being *from conceptions*, all the toil and labour lost; and a man would just as little become richer in knowledge from mere ideas, as a merchant in fortune, if, in order to better his situation, he were to add cyphers to the credit of his cash account!" In this criticism Kant evidently proceeds on the same general principle which he had elsewhere announced as applicable to every part of human knowledge, viz., the necessity, for all practical purposes, of combining *experience* with *a priori* reasoning, and which he had illustrated by an exquisite figure:—"The light dove, while in its free flight it divides the air, whose resistance it feels, might entertain the supposition that it would succeed much better in airless space. Just in the same way, Plato abandoned the sensible world, because it set such narrow limits to the understanding, and hazarded himself beyond it, upon the wings of ideas, into the void space of the pure understanding. He did not remark that he made no way by his efforts, since he had no counter-pressure, as it were, for his support, whereupon he could rest, and whereby he could employ his power in order to make the understanding move onward."*

What he calls the Cosmological proof, again,—that, viz., which proceeds on the *fact* of undetermined existence, or "some existence empirically assumed at the

* KANT, "Critique of Pure Reason," p. 9.

foundation,"—is shown in his criticism to be valid, but insufficient *of itself* to determine the character of the necessary or self-existent Being:—"It runs thus: If something exists, then must also an absolutely necessary Being exist. Now I know that I myself at least exist; consequently an absolutely necessary Being exists. The proof begins from experience, and is not wholly deduced *a priori*; but makes no reference to the character of the world or of any thing but bare existence. It is only the Ontological in a new form, founding on experience only to make a single step, viz., to the existence of a necessary Being in general. The necessary Being can only be determined through its *conception*—the conception of the *entis realissimi*, or most Real Being." That this method is equally legitimate and valid, *so far as it goes*, is admitted by Kant. "The natural course that every human reason, even the commonest, takes, is to begin, not with *conceptions*, but with ordinary *experience*, and therefore it lays something existing at the foundation. . . . If something, whatever it may be, exists, it must then be admitted that something exists *necessarily*. For the contingent exists only under the condition of another thing as its cause; and from this the conclusion is valid henceforth up to a cause that exists not contingently, and precisely on this account, without condition,—necessarily. This is the argument whereon reason founds its progression to the original Being. . . . Now, reason looks out for the conception of a Being that is suitable for such a prerogative of existence as unconditional necessity. . . . That, the conception of which contains in itself for every *why* the *because* (or reason), which is defective in no point, which reaches everywhere as condition, seems on this very account to be the suitable Being for this absolute necessity. . . . Thus,

therefore, the natural course of human reason is constituted. First, it convinces itself of the existence of some necessary Being. In this Being it cognises an independent existence. Then it seeks the conception of the independent of all condition, and finds such in that which is itself the sufficient condition of every other. A certain foundation cannot be denied to this conception.—This argument, although certainly it is transcendental, since it rests upon the internal insufficiency of the contingent, is still so simple and natural, that it is adapted to the commonest intelligence, so soon as such is only once led to it. We see things change, arise, and decay; they must, therefore, or at least their state, must have a cause. But of every cause which can ever be given in the *phenomenon*, just this same thing may again be demanded. Now, where should we place more properly the supreme causality than there where also the highest causality is,—*i. e.*, in that Being which for possible effect contains originally sufficiency in itself? We hold, then, this highest cause for absolutely certain, because we find it absolutely necessary to ascend *to* it, and no reason to go still further out *beyond* it.” *

This part of Kant's criticism is not adverse to any part of our previous proof, but rather confirmatory of it, in so far as it depends on the principle of causality;—nor are his objections to the *insufficiency* of one part of the argument opposed to our views, since we have explicitly stated that, while it is valid so far as it goes, it is not enough *of itself*, and apart from other evidence, to lay a solid groundwork for belief in a living, personal God.

What he calls the Physico-theological proof, again,—that, *viz.*, which arises neither from the *conception*, nor from the *experience* of existence in general, but from a

* KANT, “Critique of Pure Reason,” p. 450

determined experience, that of the things of the present world, their nature, and order,"—is held to be, equally with the two former, inconclusive, on the ground of mere *speculative reason*, while much is said of it which seems to imply that Kant had formed a high estimate of its practical value. He attempts to show that "however reasonable and useful, it cannot claim *apodeictical* certainty, and may give rise to a belief sufficient for tranquillity, but not commanding unconditional surrender. I maintain that the Physico-theological proof can never *alone* show the existence of a Supreme Being, but it must always leave it to the Ontological one, to which it only serves as introduction, to complete the deficiency. Consequently such Ontological one still always contains *the only possible proof*, which no human reason can disregard, provided generally a *speculative* proof takes place." "At the most, the Physico-theological proof could only demonstrate an *Architect* of the world, who would be always limited through the fitness of the material which he worked upon, but not a *Creator* of the world, to the idea of which every thing is subject,—which is very far from being sufficient for the great object which we have in view, that is to say, to show an all-sufficient original Being."

On this statement we offer the following remarks. *First*, it is designed merely to prove that the Physico-theological argument *alone*, and apart from *a priori* truths of reason, is insufficient to demonstrate the existence of God as the Creator of the world; and is not applicable, therefore, to those methods of proof in which the facts of experience are combined with the fundamental laws of thought. *Secondly*, in speaking of the Physico-theological proof, he uses that term in a very restricted sense to denote the evidence arising from "the

sensible world," and his objection is not applicable to the more comprehensive proof, which is founded, not only on *material*, but also on *mental* and *moral* phenomena, on which he subsequently founds in constructing his argument from *practical reason*. *Thirdly*, in saying that the Physico-theological proof must always leave it to the Ontological one to complete the deficiency, and that the latter is the only possible proof on speculative grounds, he gives no reason why the Ontological, which proceeds, according to his definition, from mere *conceptions*, should be preferred rather than the Cosmological, which is based on the *fact* of existence, empirically established or assumed; and by adopting the latter instead of the former, as we have done in our Statement of the Proof, we may avoid the great difficulty which seems to have perplexed and embarrassed him,—the difficulty of leaping, or bridging over, the wide chasm which seems to lie between our *mere conceptions*, and the *objective realities* to which they point.

That Kant, notwithstanding his subtle and somewhat hypercritical turn of mind, was not insensible to the value of the natural evidence, or to the validity of the *a posteriori* proof, in favour of the being and perfections of God, is evinced, we think, with sufficient clearness, by his own beautiful language:—"The present world opens to us so immense a spectacle of diversity, order, fitness, and beauty, whether we pursue these in the infinity of space or in its unlimited division, that, even according to the knowledge which our weak reason has been enabled to acquire of the same, all language fails in expression as to so many and great wonders,—all number in measuring their power,—so that our judgment of the whole must terminate in a speechless, but so much the more eloquent, astonishment. Everywhere

we see a chain of effects and causes, of ends and means, regularity in origin and disappearance; and since nothing has come of itself into the state in which it is, it always thus indicates farther back another thing as its cause, which renders necessary exactly the same further inquiry: so that in such a way the great whole must sink into the abyss of nothing, if we did not admit of something existing in itself, originally and independently, external to this infinite contingent, which maintained it, and, as the cause of its origin, at the same time secured its duration." "This proof," he adds, "deserves at all times to be mentioned with respect. It is the oldest, the clearest, and the most adapted to ordinary human reason. It animates the study of nature, just as it itself has its existence from this, and thereby ever receives fresh force. It manifests ends and views where our observation had not itself discovered them, and extends our cognitions of nature by means of the clue of a particular unity, whose principle is out of nature. But these convictions react back again upon their cause, viz., the occasioning idea, and increase the belief in a higher Being into an irresistible conviction." *

When Kant says, therefore, that there is, and can be, "no *demonstration* of God," that the argument between the Theist and Atheist is "a drawn battle on the ground of *speculative* reason," and that "there is only one proof possible," such as is not speculative, but practical and moral,† we must evidently seek for the ground and reason of such statements in his peculiar system of Metaphysics and Psychology. Nor is it difficult to be found. It may be discovered at once in his favourite distinction between the *speculative* and *practical* reason, or between the reason

* KANT, "Critique of Pure Reason," pp. 473, 474.

† Ibid., pp. 539, 567, 593, 601, 621.

and the understanding, as *that distinction is interpreted and applied by himself*. We add this qualification, because there is a sense in which we are prepared to admit the distinction between the understanding, which forms particular judgments, and the reason, which reaches still higher conclusions, either by its spontaneous activity as a faculty of intuitive perception, or by its exercise as a faculty of deduction. Were there nothing more involved in his theory than a mere question of terminology, we should not object to the terms in which that distinction is expressed,—provided only it were clearly understood that, while we admit a faculty of reason *distinguishable* from experience, we admit none that is *separable* from it, or *altogether* independent of it. But this is not the sense in which Kant speaks of *speculative* reason. With him it cannot be entitled to that name, if it proceeds at all on any dictum of experience, or if it involves any, even the slightest, fragment of an empirical element. Accordingly he applies the distinction to each of the three great branches of Ontology, with the view of showing that, by SPECULATIVE reason, we cannot prove—our own existence,—or that of the world,—or that of God. It is applicable, in short, and it is in fact applied, equally to Psychology, Cosmology, and Theology. Now, an objection which affects the conclusions of Theology only so far as it affects also the certainty of our own existence, or that of the external world, cannot have any real weight. It may display a marvellous ingenuity on the part of its author; but it must issue, as it has issued in the schools of Germany, in partial, if not total, scepticism. The semi-scepticism of Kant may be justly said to have prepared the way for the speculations of Fichte, Schelling, and Hegel.*

Let us take, as an example, his statement respecting

* ABBÉ MARET, "Theodicée," p. 190.

the existence of the human soul.—This fact,—the most familiar with which we are conversant,—neither needs nor admits of proof by reasoning: it is given immediately in consciousness,—it is intuitively believed by every sane mind. But consciousness belongs to *experience*, and every shred and fragment of *experience* must be rigorously excluded from rational or transcendental Psychology. Accordingly, Kant sets himself to the arduous task of proving that the proposition, “I think,” has nothing empirical in it, and that it does not depend on consciousness. He admits that the proposition, in this sense, is purely *abstract*, and that it can lead only to *abstract* existence, or, in his own phraseology, that “the *moi*, the thing which thinks, represents nothing but a transcendental subject of thought = *x*,” and this is the sole foundation of his rational Psychology. Nay, he goes further, and confesses that his whole Critique would be in danger, could it be shown that the soul is a real substance, and not a mere logical entity, or that the proposition, “I think,” depends on consciousness and experience. It is the same principle which is applied to the other branches of Ontology,—the existence of the world, and the existence of God. Every empirical element must be excluded, at the peril of forfeiting the proud name of a *speculative* doctrine, and being reduced to the lower level of practical reason. Be it so. We can afford to relinquish without a sigh that *self* which, however transcendental, is only = *x*,—and that *world* which is a mere abstraction,—and that *ideal* which has no reality in it; and are well content to rest in the plain, homely, practical reason, which has been given as our guide in life, and of which Kant himself has said, that, “in all important matters, Providence has not willed that men should depend on the subtlety of ingenious reasonings; He has,

on the contrary, made them over immediately to *common sense*, which never fails, except when it allows itself to be led astray by false science, to lead us straight to what is true and useful." *

It is due to Kant to add, that on moral and practical subjects, he applies the doctrine of *final causes* with a felicity that has rarely been surpassed. In treating of the immortality of the soul, he speaks of the insufficiency of the purely *speculative* proof, but adds,—“The proofs which are for the use of the world preserve all their value, and, without any kind of dogmatic pretension, they never cease to gain in clearness, and to produce a natural conviction. Following the analogy to the nature of living beings, in which reason must necessarily admit that there is not an organ, not a faculty, not an inclination, nothing in short which is not adapted to a certain *use* or which is without an *end*, but that every thing is on the contrary exactly proportioned to a definite purpose; following this analogy, Man, who can contain in himself *the last final end of all these things*, cannot be the only creature that is an exception to the rule. The endowments of his nature,—I speak not only of the qualities and inclinations which he has received for use, but above all of the Moral Law which he carries within him,—these endowments are so far above the uses and advantages which he can derive from them in this life, that he learns from the moral law itself to esteem above every thing the simple consciousness of the integrity of his sentiments, to the loss of all his goods and even of that shadow which is called glory, and that he feels himself inwardly called

* The whole subject is discussed at length, and with admirable clearness, by M. COUSIN, “Leçons sur la Philosophie de Kant,” p. 158-262. See also M. JULES BARNI, “Examen de la Critique”—“Jugement Teleologique,” p. 164-306.

to render himself worthy by his conduct, and, trampling under his feet all other advantages, to become a citizen of a better world of which he has an idea. This powerful, irrefragable proof, if we add to it the knowledge of the final end of all things, a knowledge which is ceaselessly extending, and the idea of the immensity of creation ; consequently, also, the consciousness of the possibility of a certain unlimited extension of our knowledge, as also the desire which corresponds to it ; this proof ever remains, even when we must cease to found on *pure theory* the necessary duration of our existence." *

The use of final causes, in connection with the evidence for the immortality of the soul, is here admitted ; and the same principle is equally applicable to the proof of the Being and Perfections of God.

* M. COUSIN, "Leçons sur la Philosophie de Kant," p. 196.

SECTION III.

MODERN ATHEISM, AND THE THEORIES WHICH HAVE
BEEN APPLIED IN SUPPORT OF IT.

MODERN ATHEISM, &c.

INTRODUCTORY REMARKS.

A TREATISE on the Being and Perfections of God, as the Creator and Governor of the world, can scarcely be adapted to the exigencies of modern society, unless it be framed with express reference to the existing forms of unbelief, and the prevailing tendencies both of philosophical thought and of popular opinion. It is quite possible, indeed, to construct a scheme of evidence on this subject out of the ample materials which the storehouse of nature affords, without entering into any discussion of the questions, whether Physical or Metaphysical, which have been raised respecting it. But this method, although it might be sufficient for many, perhaps for most, of our readers,—for all, indeed, who come to the study of the subject with reflective but unsophisticated minds,—could scarcely be expected to meet the case or to satisfy the wants of those who stand most in need of instruction; the men, and especially the young men, in all educated communities, who, imbued with the spirit of philosophical speculation, and instructed, more or less fully, in the principles of modern science, have been led, under the influence of certain celebrated names, to adopt opinions

which prevent them from seriously considering any theological question, and to regard the whole subject of religion with indifference or contempt, as one that lies beyond the possible range of science,—the only legitimate domain of human thought. In such cases (and they are neither few nor unimportant), it may be useful and even necessary to neutralise those adverse presumptions or “pre-judicate opinions,” which prevent them from considering the evidence to which Theism appeals, and to review the various theories from which they spring, so as to show that they afford no valid reason for discarding the subject, and no ground for alleging that it is not fit *to go to proof*. It is true that we must ultimately rely, for the establishment of our main positions, on that body of natural and historical evidence, which depends little, if at all, on any of the Theories of Philosophical Speculation, or even on any of the discoveries of Physical Science; but it is equally true that the evidence, however conclusive in itself, cannot be expected to produce conviction unless it be candidly examined and weighed: and if there be any thing in the existing state of public opinion which leads men to regard the whole subject with indifference or suspicion, to conceive of it as a problem insoluble by the human faculties, and to treat Theology as a fond fancy or a waking dream, it were surely well to examine the grounds of such opinions, to expose their fallacy so as to counteract their influence, and to refute those theories which prevent men from judging of the evidence as they would on any other topic of Inductive Inquiry. In adopting this course, we are only following the footsteps of the profound Author of the “Analogy,” who finding it, he knew not how, “to be taken for granted, by many persons, that Christianity is not so much as a subject of inquiry,” set himself, in the first instance, to prove, “that

it is not, however, so clear a case that there is nothing in it;"—this preliminary proof being designed to neutralise objections, and to disburden the subject of all adverse presumptions, so as to be judged on its own proper and independent merits. We are imitating, too, the example of another sagacious writer on a kindred theme, who thought that "Apologists had paid too little attention to the *prejudices* of their opponents, and had been too confident of accomplishing their object at once, by an overpowering statement of the direct evidence,—forgetting that the influence of prejudice renders the human mind very nearly inaccessible to both evidence and argument." *

If this method was ever necessary or expedient, it is peculiarly so in the present age. Opinions are afloat in society, and are even avowed by men of high philosophical repute, which formally exclude Theology from the domain of human thought, and represent it as utterly inaccessible to the human faculties. They amount to a denial, not merely of its truth, but of its very possibility. They place it among the dreams of the past,—with the fables of the Genii, or the follies of Alchemy, or the phantoms of Astrology. They intimate, in no ambiguous terms, not only that Catholicism is effete, and Christianity itself dead or dying, but that Theology of every kind, even the simplest and purest form of Theism, must speedily vanish from the earth. Admitting that the religious element was necessarily developed in the infancy of the species, and that its influence was alike inevitable and salutary during the world's minority, when it was placed provisionally "under tutors and governors," they proclaim that mankind have outgrown the

* BISHOP BUTLER, "Analogy," Preface, p. ii.

DR INGLIS, "Vindication of the Christian Faith," p. vi.

vestments which suited them in earlier times, and that now they must "put away childish things." That such sentiments have been publicly avowed,—that they have been proclaimed as the scientific results of speculative thought,—and that they have been widely circulated in the vehicles both of philosophic discussion and of popular literature,—will be proved by evidence, equally sad and conclusive, in the succeeding chapters; in the meantime we refer to them merely for the purpose of showing that in so far as their influence prevails, they must necessarily tend, unless they be counteracted by some effective antidote, to generate such a prejudice against the whole scheme of Theology, whether Natural or Revealed, as may be expected, especially in the case of young, inexperienced, and ardent minds, to prevent them from entertaining the subject at all, or examining, with serious and candid interest, any kind or amount of evidence that might be adduced in regard to it.—For this reason, we propose to review the various Theories or Systems which may be said to embody and exhibit these prevailing tendencies,—to meet our opponents on their own chosen ground, and to subject their favourite speculations to a rigorous and sifting scrutiny; and this, not for the purpose of proving our fundamental position, for that must rest on its proper and independent evidence, but simply with the view of neutralising the adverse presumptions which prevent many from considering its claims, and proving that it is a subject that demands and deserves their serious and sustained attention.

Taking a comprehensive view of European Science and Literature during the last half century, we may discern the great currents, or chief tendencies, of speculative thought, in so far as it bears on the evidences and doctrines of Religion, in several distinct but closely

related systems of opinion, which, whether considered severally or collectively, must exert, in proportion to their prevalence, a powerful influence on the side of Atheism. —These systems may be divided generally into *two* great classes,—according as they relate to the *substance*, or to the *evidence*, of Theism, to the *truths* which it involves, or the *proofs* to which it appeals. The interval between the first and second French Revolutions may be regarded as the season during which the theories to which we refer were progressively developed, and ultimately consolidated in their existing forms. The germ of each of them may have existed before, and traces of them may be detected in the literature of the ancient world, and even in the writings of mediæval times; nay, it might not be too much to affirm that in the systems of Oriental Superstition, and in the Schools of Grecian Scepticism, several of them were more fully taught in early times than they have yet been in Modern Europe, and that the recent attempts to reconstruct and reproduce them in a shape adapted to the present stage of civilization, have been poor and meagre in comparison with those more ancient efforts of unenlightened reason. What modern system of Scepticism can rival that of Sextus Empiricus? What code of Pantheism, French or German, can be said to equal the mystic dreams of the Vedanta School? What godless theory of Natural Law can compete with the Epicurean philosophy, as illustrated in the poetry of Lucretius? The errors of these ancient systems have been revived even amidst the light of the nineteenth century, and prevail to an extent that may seem to justify the apprehension, frequently expressed on the Continent of late years, of the restoration of a sort of Semi-Paganism in Modern Europe; and it is still necessary, therefore, for the defence of a pure Theism,

to re-examine those ancient forms of error which have reappeared on the scene after it might have been supposed that they had vanished for ever. For the very tenacity with which they cleave to the human mind, and their perpetual recurrence at intervals along the whole course of the world's history, show that there must be something in the wants, or at least in the weaknesses of our nature, which induces men to tolerate and even to embrace them. But the chief danger, as we conceive, lies in those new, or at least newly organised, theories that have only recently received their full development in the Inductive and Scientific pursuits which constitute the peculiar glory of modern times; and which, commencing with the era of Bacon and Descartes, and gradually matured by Newton, Leibnitz, and their successors, have at length issued in the construction of a solid fabric of Science. To Theism there is no danger in Science, in so far as it is true, for all truth is self-consistent and harmonious: but there may be much danger in the use that is made of it, or in the spirit in which it is applied. In the hands of Bacon and Newton and Boyle, the doctrine of Natural Laws was treated as an ally, not as an antagonist, to Theology; in the hands of Comte it becomes a plea for Atheism; and even in the hands of Combe an argument against a special Providence and the efficacy of prayer.—Here the danger is the greater just by reason of the acknowledged truth and practical value of the Inductive Philosophy: for its certainty is so well ascertained, and its manifold uses so generally appreciated, that if it shall come to be regarded as incompatible with the recognition of God and Religion, Society will soon find itself on the verge of universal Atheism. And this is the fearful issue to which the more recent schools of speculation are manifestly tending.

The first French Revolution was brought about by the labours of men who fought against Christianity, at least ostensibly, under the banner of Deism or Natural Religion; the second Revolution was consummated under the auspices, not of a Deistic, but of an Atheistic philosophy. The school of Voltaire and Rousseau has given place to the school of Comte and Leroux. The difference between the two indicates a rapid and alarming advance. It may not be apparent at first sight or on a superficial survey: but it will become evident to any one who compares the two French Encyclopædias, which may be regarded as the exponents of the reigning philosophy of the two great revolutionary eras. The first, the *Encyclopedie* of D'Alembert, Voltaire, and Diderot, sought to malign and extirpate Christianity, while it did frequent homage to Natural Theology; the second, the "*Nouvelle Encyclopedie*" of Pierre Leroux and his coadjutors, proclaims the deification of Humanity, and the dethronement of God!

CHAPTER I.

MODERN ATHEISM.

BEFORE entering on a detailed discussion of the theories to which it appeals, it may be useful to offer some general reflections on ATHEISM itself,—its generic nature and specific varieties,—its causes and springs, whether permanent or occasional,—and its moral and social influence, as illustrated alike by individual experience and by public history.

By Atheism we mean any system of opinion which leads men either to *doubt* or to *deny* the Existence, Providence, and Government of a living, personal, and holy God, as the Creator and Lord of the world. In its practical aspect, it is that state of mind which leads them to *forget*, *disown*, or *disobey* Him.

We are met, however, at the outset, by a previous question,—*whether Atheism be a real or even a possible thing?* a question which was wont to be discussed by Divines under the head, *an dentur Athei?** and which has recently been revived by the strong protestations of some philosophic writers, who deny not only the existence, but the very possibility, of Atheism. On this point the policy which infidels have pursued has been widely different at different times. On some occasions, they

* BUDDÆI, "Theses Theologicæ de Atheismo et Superstitione," cap. i.

have sought to exaggerate the number of Atheists, claiming as their own adherents or allies a large majority of the intellectual classes, as well as whole tribes or nations of barbarians, in order to impress the public mind with the conviction that belief in God is neither natural nor universal: at other times, they have sought to allay the prejudice which avowed Atheism seldom fails to awaken, by disclaiming much that has been imputed to them,—by professing a sort of mystic reverence for the Spirit of Nature, and by denying that their speculations involve a disbelief in God. In following these opposite courses at different times, they have been actuated by a politic regard to the exigencies of their wretched cause, and have alternately adopted the one or the other, just as it might seem, in existing circumstances, to be more expedient either to brave or to conciliate public opinion. It is incumbent, therefore, on every enlightened advocate of Christian Theism to exercise a prudent discretion in the treatment of this topic, and to guard equally against the danger either of being led to exaggerate the extent, or of being blinded to the existence, of the evil. Nor is it difficult to discover a safe middle path between the opposite extremes: it is only necessary to define, in the first instance, what we mean when we speak of Theism or Atheism respectively, and then to ascertain, in the second place, whether any, and what, parties have avowed principles which should fairly serve to connect them with the one system or with the other. A clear conception of the radical principle or essential nature of Atheism is indispensable: for without this, we shall be liable, on the one hand, to the risk of imputing Atheism to many who are not justly chargeable with it—a fault which should be most carefully avoided;*

* J. C. WOLFIUS, "De Atheismi falso Suspectis."

and equally liable, on the other hand, to the danger of overlooking the wide gulph which separates Religion from Irreligion, and Theism from Atheism. There is much room for the exercise both of Christian candour and of critical discrimination, in forming our estimate of the characters of men from the opinions which they hold, when these opinions relate not to the vital truths of religion, but to collateral topics, more or less directly connected with them. It is eminently necessary, in treating this subject, to discriminate aright between systems which are essentially and avowedly atheistic, and those particular opinions on cognate topics which have sometimes been applied in support of Atheism, but which may, nevertheless, be held by some *salvâ fide*, and without conscious, still less avowed, Infidelity. And hence Buddæus and other divines have carefully distinguished between the radical principles or grounds of Atheism, and those opinions which are often, but not invariably, associated with it.*

But it is equally or still more dangerous, on the other hand, to admit a mere nominal recognition of God as a sufficient disproof of Atheism, without inquiring what conception is entertained of His nature and perfections,—whether He be conceived of as different from, or identical with, Nature,—as a living, personal, and intelligent Being, distinct from the universe, or as the mere sum of existing things,—as a free Creator and Moral Governor, or as a blind Destiny and inexorable Fate. These are vital questions, and they cannot be evaded without serious detriment to the cause of religion. A few examples will suffice to prove our assertion. M. Cousin contends that *Atheism is impossible*, and assigns no other reason for his

* BUDDÆI “Theses Theologicæ,” cap. iii., “De dogmatibus quæ cum Atheismo conjuncta sunt, aut ad eum ducunt,” p. 240.

conviction than this,—that the existence of God is necessarily implied in every affirmation, and may be logically deduced from the premises on which that affirmation depends.* His reasoning may possibly be quite conclusive *in point of logic*, in so far as it is an attempt to show that the existence of God *ought* to be deduced from the consciousness of thought; but it cannot be held conclusive as to *the matter of fact*, that there is no Atheism in the world, unless it can be further shown that all men know and acknowledge His existence as a truth involved in, and deducible from, their conscious experience. Yet he does not hesitate to affirm that “every thought implies a spontaneous faith in God;” nay, he advances further, and adds that even when the sage “denies the existence of God, still his words imply the idea of God, and that belief in God remains unconsciously at the bottom of his heart.”—Surely the denial or the doubt of God’s existence amounts to Atheism, however inconsistent that Atheism may be with the natural laws of thought, or the legitimate exercise of speech.

Yet the bold paradox of COUSIN was neither an original discovery nor an unprecedented delusion. It was taught, in a different form, but with equal confidence, by several writers belonging to the era of the first French Revolution. Thus HELVETIUS, in his work on MAN, says expressly:—“There is no man of understanding who does not acknowledge *an active power in Nature; there is, therefore, no Atheist*. He is not an Atheist who says

* COUSIN, “Introduction Generale a l’Histoire de la Philosophie,” I. 169: —“Que toute pensée implique une foi spontanée à Dieu, et qu’il n’y a pas d’Atheisme naturel. Croit-il qu’il existe, par exemple? S’il croit cela, cela me suffit,”—“il a donc foi au principe de la pensée;—or là est Dieu,”—“Selon moi, toute parole prononcée avec confiance, n’est pas moins qu’une profession de la foi à la pensée,—à la raison en soi,—c’est à dire à Dieu.”

that *motion is God*; because, in fact, motion is incomprehensible, as we have no clear idea of it, since it does not manifest itself but by its effects, and because by it all things are performed in the universe. He is not an Atheist who says, on the contrary, that *motion is not God*, because motion is not a being, but a mode of being. They are not Atheists who maintain that motion is essential to matter, and regard it as the invisible and moving force that spreads itself through all its parts,”—“as the universal soul of matter, and the divinity that alone penetrates its substance. Are the philosophers of this last opinion Atheists? No; they equally acknowledge an unknown force in the universe. Are even those who have no ideas of God Atheists? No; because then all men would be so, because no one has a clear idea of the Divinity.” *

A more recent writer, the ABBÉ LAMENNAIS, is equally explicit, and very much for the same reasons:—“The Atheist himself has his own notion of God; only he transfers it from the Creator to the creation; he ascribes to finite, relative, and contingent being the properties of the necessary Being; he confounds the work with the workman. Matter being, according to him, eternal, is endowed with certain primitive, unchangeable properties, which, having their own reason in themselves, are themselves the reasons of all successive phenomena;” and “it matters little whether he rejects the *name* of God or not,” or “whether he has, or has not, an explicit knowledge of Him;” he cannot but acknowledge an eternal First Cause.† And so a whole host of Pantheistic Spiritualists will indignantly disclaim the imputation of Atheism, and even attempt to vindicate Spinoza him-

* M. HELVETIUS, “Treatise on Man, his Intellectual Faculties and Education:” translated by W. Hooper, M.D., i. 247.

† M. LAMENNAIS, “Esquisse d’une Philosophie,” i. 95.

self from the odious charge. * Nay, some of the grossest Materialists, such as Atkinson and Martineau, while they explicitly deny the existence of a living personal God, will affirm that Pantheism is not Atheism.† Now, unquestionably, if by Theism we mean nothing more than the recognition of an active power in Nature,—such a power as may or may not be identified with motion, and as may be designated indifferently as the Divinity, or as the Soul of the world,—the possibility of Atheism may be effectually excluded; but this only serves to show the indispensable necessity of a correct definition of the terms which are employed in this discussion, since it is perfectly manifest that they are not used in the same sense by the contending parties, and that consequently the disputants are not arguing about the same thing. For Pantheism, whatever form it may assume, and whatever language it may adopt, can be regarded in no other light than as a system of Atheism by all who have any definite conception of what is meant when we either affirm or deny the existence and government of a living, intelligent, personal God.

As Atheism has appeared in several distinct forms, it is necessary to consider both its *generic nature* and its *specific varieties*. It may be defined, generally, as that state of mind which involves either *the denial* or *the doubt* of the existence and government of God as an all-perfect Being distinct from the created universe; or which leads to the habitual forgetfulness and wilful neglect of His claims as our Creator, Preserver, and Lord. This state of mind, whether evinced by words or by actions, contains

* "Spinoza is a God-intoxicated man."—NOVALIS, quoted in T. Carlyle's *Essays*, II. 43.

† "Letters on the Laws of Man's Nature and Development, by H. G. ATKINSON and HARRIET MARTINEAU," p. 241.

in it the essence of Atheism, and it is recognised in Scripture in each of its two aspects, as an evil alike natural and prevalent. The words of the Psalmist, "The fool hath said in his heart, No God,"* whether they be interpreted as the expression of an *opinion* or of a *wish*, indicate in either case the existence of that state of mind which has just been described, and which may issue either in Practical or Speculative Atheism, according to the temperament of individual minds, and the influences which are brought to bear upon them.—The same inspired writer has said,† that "the wicked through the pride of his countenance will not seek after God; God is not in all his thoughts;"—"He hath said in his heart, God hath forgotten, He hideth his face, He will never see it;"—"Wherefore doth the wicked contemn God? he hath said in his heart, Thou wilt not require it;" and these words exhibit a graphic delineation of that state of mind in which occasional thoughts of God are neutralised by habitual unbelief, and the warnings of conscience silenced by the denial of a supreme moral government. In like manner, when the apostle tells the Ephesian converts that at one time "they were *without God* in the world,"‡ and the Galatians, that "when they knew not God, they did service unto them which by nature are no gods;"—when he further speaks of some as "lovers of pleasures more than lovers of God," as "having a form of godliness, but denying the power thereof,"—as "professing that they know God, but *in works denying Him*;"§—in all these statements we see the generic nature of that ungodliness which cleaves as an inveterate disease to our fallen nature, and which, whether it appears only in the

* Psalm xiv. 1, liii. 1.

† Psalm x. 4, 11, 13.

‡ Eph. ii. 12, Ἀθεοὶ ἐν τῷ κόσμῳ.

§ Gal. iv. 8; 2 Tim. iii. 4; Titus i. 16.

form of practical unbelief and habitual forgetfulness, or assumes the more daring aspect of avowed infidelity, contains in it the essence of Atheism.

While such is its *generic nature*, we must further discriminate between its specific varieties; for it does not always wear the same aspect, or rest on the same grounds. It may be divided, first of all, into *speculative* and *practical* Atheism: the former implying a denial or a doubt of the existence and government of God, either openly avowed or secretly cherished; while the latter is perfectly compatible with a nominal religious profession, and consists in the habitual forgetfulness of God and of the duties which arise out of His relation to us as His creatures and subjects. Speculative Atheism is comparatively rare; Practical Atheism is widely prevalent, and may be justly regarded as the grand parent sin,—the universal characteristic of fallen humanity.* It is not Atheism in profession, it is Atheism in practice. Those who are chargeable with it may “profess that they *know* God, but in works they *deny* Him.” As distinguished from theoretical or speculative Atheism, it is fitly termed *ungodliness*. It does not necessarily imply either the denial or the doubt of the existence or government of God, but consists mainly in the forgetfulness of His character and claims. Speculative Atheism always implies habitual ungodliness; but the latter may exist where the former has never been embraced, and has even been openly and sincerely disclaimed. Yet such is the *connection* between the two, that Speculative Atheism invariably presupposes and perpetuates practical ungodliness; and that the latter has also a tendency to produce the former, since the habitual disregard of God in the

* ESTLIN, “Discourse on Atheism,” pp. 8, 19, 28.

DR CHALMERS, “Institutes,” I. 375.

practical conduct of life indicates a state of mind in which men are peculiarly exposed to the seductions of infidelity and prone to yield to them, especially in seasons of revolutionary excitement or of prevailing epidemic unbelief. It would be wrong to rank every ungodly man among professed or even conscious Atheists, for he may never have denied or even doubted the existence and government of God; yet it were equally wrong to represent or treat him as a true believer, since he shows that, practically, "God is not in all his thoughts;" and hence the necessity of our *first* distinction between *theoretical* or *speculative*, and *practical* or *habitual* Atheism.

Speculative Atheism, again, is either *dogmatic* or *sceptical*. It is *dogmatic*, when it amounts to an affirmation, either that there is no God, or that the question of His existence is necessarily insoluble by the human faculties. —Atheism has been distinguished from Anti-theism: and the former has been supposed to imply merely the non-recognition of God, while the latter asserts His non-existence. This distinction is founded on the difference between *unbelief* and *disbelief*;^{*} and its validity is admitted in so far as it discriminates merely between dogmatic and sceptical Atheism. But Anti-theism is maintained, in the strictest sense of the term, where it is affirmed either that there is no God, or that the existence of the Supreme Being *cannot* in any circumstances become an object of human knowledge. In each of these forms, Atheism is dogmatic; it denies the existence of God, or it denies the possibility of His being known. But there is also a *sceptical* Atheism, which does not affirm absolutely either that there is no God, or that the knowledge of God is necessarily excluded by the limitations of human rea-

* DR CHALMERS, Works, "Natural Theology," I. 58.

"The Reasoner," edited by HOLYOAKE, XI. 15, 232.

son, but contents itself with saying, "*non-liquet*,"—i.e., with denying the sufficiency of the evidence. It answers every appeal to that evidence by saying that, however satisfactory it may be to the minds of some, it does not carry conviction to the minds of all, and that for this reason it may be justly regarded as doubtful or inconclusive. —These two forms of Atheism,—the Dogmatic and the Sceptical,—are widely different from each other; they rest on distinct grounds, and they require, therefore, to be discussed separately, each on its own peculiar and independent merits. The Dogmatic Atheist feels no force in the arguments which are directed merely against his Sceptical ally; for, strong in his own position and confident in his ability to maintain it, he is conscious of no speculative doubt, and affirms boldly what he unhesitatingly believes. The Sceptical Atheist, again, feels no force in the arguments which are directed against a Dogmatic System such as he utterly disclaims; he is equally unwilling to affirm either that there is, or that there is not, a God: he takes refuge in doubt, and refuses alike to affirm or to deny; his only plea is the want or the weakness of evidence on either side. From this radical difference between the two forms of Speculative Atheism, there arises a necessity for discussing each of them on its own merits;—and yet, although theoretically they may be easily distinguished, it will be found that practically they are often conjoined, since the same mind will often fluctuate between the two, and shift its ground by betaking itself alternately to the one or the other, according to the exigencies of the argument. Assail the Dogmatic Atheist with the unanswerable statement of John Foster, that it would require nothing less than Omniscience to warrant the denial of a God, and he will probably defer to it so far as to admit that he cannot prove his negative

conclusion, but will add that he is not bound to do so, and that all that can be reasonably required of him is to show that the evidence adduced on the opposite side is insufficient to establish the Divine existence, or that the phenomena which supply that evidence may be as well, or more satisfactorily, explained in some other way. Assail, in like manner, the Sceptical Atheist with the self-evident truth that, even on his own principles, he is not entitled to assume, or to act upon the assumption, that *there is no God*, since the result of his reasonings is *doubt* merely, and such doubt as implies that there *may be* a Creator, Governor, and Judge, he will probably defer to it so far as to admit that this is the only logical result of his system, but will add that, where there is no conclusive evidence on either side, there can be no moral obligation to a religious life, and no guilt in living “without God in the world.”—It will be found, too, that distinct as these two forms of Speculative Atheism may appear to be, yet they have often been made to rest on a common ground, and the self-same arguments have been adduced in support of both. Thus the doctrine of Materialism, the theory of Development, and the system of Natural Laws, have all been applied by the Dogmatic Atheist to justify his denial of the existence and government of God, on the ground that all the phenomena of Nature may be accounted for without the supposition of a Supreme Mind; while the very same doctrines or theories have been also applied by the Sceptical Atheist to justify, not his *denial*, but his *doubt*, and to vindicate his verdict of “*non-liquet*” on the evidence adduced. And as the same arguments are often employed by both parties in support of their respective views, so they make use, for the most part, of the same objections in assailing the cause of Theism; insomuch that it would be impossible, and even were it

possible it would be superfluous, to attempt a formal refutation of either, without discussing those more general principles which are applicable to both. For this reason, we propose to examine in the sequel the various theories which have been applied in support alike of Dogmatic and of Sceptical Atheism, so as to illustrate the grounds that are common to both, while we consider also the distinctive peculiarities of the two systems, and more particularly the grounds of Religious Scepticism.

Besides the radical distinction between Dogmatic and Sceptical Atheism, we must consider the difference between *the four great leading systems* which have been applied to account for the existing order of Nature, without the recognition of a living, intelligent, personal God. There are many specific varieties of Atheism; but, ultimately, they may be reduced to *four* classes.—The *first* system assumes and asserts the eternal existence of THE COSMOS; that is, of the present order of Nature, with all its laws and processes,—its tribes and races, whether of vegetable or animal life; and affirms that the world, as now constituted, never had a beginning, and that it will never have an end. This has been called the Aristotelian Hypothesis, because Aristotle, while he spoke of a Supreme Mind or Reason, maintained not only the eternity of matter, but also the eternity of “substantial forms and qualities.”

The *second* system affirms,—not the eternal existence of THE COSMOS, for the commencement of the existing order of Nature is admitted to be comparatively recent,—but the eternal existence of Matter and Motion; and attempts to account for the origin of the world and of the races by which it is peopled, either by ascribing it, with Epicurus, to a fortuitous concourse of atoms, or, with more modern Speculatists, to a law of progressive

development. This has been called the Epicurean Hypothesis, because Epicurus, while nominally admitting the existence of God, denied the creation of the world, and ascribed its origin to atoms supposed to have been endued with motion or certain inherent properties and powers, and to have been self-existent and eternal.

The *third* system affirms the co-existence and co-eternity of God and the World; and, while it admits a distinction between the two, represents them as so closely and necessarily conjoined, that God can be regarded only as the Soul of the World,—superior to matter, as soul is to body, but neither anterior to it, nor independent of it, and subject, as matter itself is, to the laws of necessity and fate. This has been called the Stoical System; since the Stoics, notwithstanding all their sublime moral speculations and their frequent recognition of God, taught that God sustains the same relation to the World as the soul of man does to his body.

The *fourth* system denies the distinction between God and the World, and affirms that all is God, and God is all: that there exists only *one substance* in the Universe, of which all existing beings are only so many modes or manifestations; that these beings proceed from that *one substance*, not by creation, but by emanation; that when they disappear, they are not destroyed, but re-absorbed; and that thus, through endless cycles of change, of reproduction and decay, it is one and the same eternal being that is continually modified and manifested. This has been called the Pantheistic Hypothesis, and it is exemplified, on a large scale, in the speculations of the Brahmins in India, and, in Europe, in those of Spinoza and his numerous followers.

If this be a correct analysis of Speculative Atheism, in so far as it assumes a positive or dogmatic shape, we

have only to conjoin with it the peculiar characteristics of that which is merely Sceptical, and we shall obtain a comprehensive view of the whole subject, which may serve as a useful guide in the selection and treatment of the topics which demand our chief attention in the prosecution of this inquiry.

It is necessary, however, in discussing this subject, to bear in mind that there is a wide difference between Systems of Atheism such as we have briefly described, and certain doctrines which have sometimes been associated with it, or even applied in its support or vindication. These doctrines may have been connected, historically, with the promulgation and defence of atheistic views,—they may even seem to have a tendency adverse to the evidence or truths of Christian Theism; but they must not on that account be summarily characterised as atheistic, nor must those who have at any time maintained them be forthwith classed among avowed infidels. The doctrine of Philosophical Necessity, which in the hands of Jonathan Edwards was applied, whether consistently or otherwise, in illustration and defence of Christian truth, became in the hands of Collins and Godwin an associate and ally of Antichristian error; — the doctrine of the natural Mortality of the Soul, which in the hands of Dodwell was applied, whether consistently or otherwise, to vindicate the peculiar privileges of the Christian Covenant, has often been applied by infidels as a weapon of assault against the fundamental articles of Natural Religion itself;—the doctrine of Materialism, which in the hands of Priestley was maintained, whether consistently or otherwise, in connection with an avowed belief in God as the Creator and Governor of the world, became in the hands of Baron D'Holbach and his

* ROBERT HALL'S Works, I. 58.

associates the corner-stone of the atheistic "System of Nature;"—the doctrine of "Natural Laws," which in the hands of Bishop Butler is so powerfully applied in proof of a system of Divine Government, has become in the hands of Mr Combe a plausible pretext for denying a special Providence and the efficacy of prayer;—and the mere fact that these doctrines have been applied to such different and even opposite uses, is a sufficient proof of itself, that they are not in their own nature essentially atheistic, and that they should be carefully discriminated from the systems with which they have been occasionally associated. We are not entitled to identify them with Atheism, in the case of those by whom Atheism is explicitly disclaimed; and yet there may be such an apparent connection between the two, and such a tendency in the human mind to pass from the one to the other, as may afford a sufficient reason for examining these cognate doctrines, each on its proper merits,—for defining the sense in which they should be severally understood,—for estimating the evidence which may be adduced for or against them individually,—and for showing in what way, and to what extent, they may have a legitimate bearing on the grounds of our Theistic belief.—For this reason, we shall bring under review, not only several systems of avowed Atheism, but also various theories, not necessarily atheistic, which have been applied to the support and defence of Atheism, and which have a tendency, as thus applied, to induce an irreligious frame of mind.

The *causes and springs of Atheism* may easily be distinguished from the *reasons* on which it is founded. In the present state of human nature, there is a *permanent cause* which is abundantly sufficient to account for this species of unbelief, notwithstanding all the evidence which Nature affords of the being, perfections, and

providence of God. Our Lord explained in a single sentence the whole Philosophy of Unbelief, when He said, that "men loved the darkness rather than the light, because their deeds are evil; for whoso doeth evil hateth the light, neither cometh to the light, lest his deeds should be reproved." No thoughtful man can seriously reflect on his own conscious experience, without discovering, in the disordered state of his moral nature, a reason which sufficiently explains his natural aversion from God: he finds *there* an evidence, which he can neither overlook nor deny, of his own personal turpitude and guilt; he is self-convicted and self-condemned at the bar of his own conscience; he remembers with remorse and shame many cases of actual transgression in which he resisted the dictates of reason, and resigned himself to the dominion of evil passions;—and when, with these convictions and feelings, he is asked to conceive of God as a living, personal Being, everywhere present, beholding the evil and the good, whose "eyes are as a flame of fire," and can discern "the very thoughts and intents of the heart;" when he conceives of such a Being as his Lawgiver, Governor, and Judge,—as One who demands the homage of the heart and the obedience of the life, and who has power to enforce His rightful claims by the sanctions of reward and punishment,—he will be sensible, in the first instance, of an instinctive disposition to recoil from the contemplation of His character, and a strong desire to deny, or at least to forget, His claims; and just in proportion as the idea of God becomes more vivid, or is more frequently presented to his mind, it will become the more intolerable, insomuch that he will be tempted either to banish the subject altogether from his thoughts, or, if he cannot succeed in this, to alter and modify his view of the Divine character so as to bring it

into accordance with his own wishes, and to obtain some relief from the fears and forebodings which it would otherwise awaken in his mind. If he should succeed in this attempt, he will fall into one or other of two opposite states of mind, which, however apparently different, do nevertheless spring from the same latent source,—a state of *security* or a state of *servitude*. In the former, he either forgets God altogether,—“God is not in all his thoughts;” or, he conceives of Him as “one like unto himself,” indulgent to sin, and neither strict to mark nor just to punish it: in the latter, he either “remembers God and is troubled,” or if he would allay the remorse and forebodings of an uneasy conscience, he has recourse to penance and mortification, to painful sacrifices and ritual observances, in the hope that by these he may propitiate an offended Deity. In the one case, the conflict ends in practical Atheism,—in the other, in abject Superstition. And these two,—Atheism and Superstition,—however different and even opposite they may seem to be, are really offshoots from the same corrupt root,—“the evil heart of unbelief which departeth from the living God.” In the case of the great majority of mankind, who are little addicted to speculative inquiry or to serious thought of any kind, it may be safely affirmed that, in the absence of Revelation, they will inevitably fall into one or other of these two extremes, or rather that they will oscillate alternately between the two,—in seasons of ease and prosperity living “without God in the world,” and in seasons of distress or danger betaking themselves for relief to the rites of a superstitious worship. The Apostle describes at once the secret cause and the successive steps of this sad degeneracy, when, speaking of the Gentiles, he says that “when they knew God, they glorified Him not as God, neither were thankful, but

became vain in their imaginations, and their foolish heart was darkened; professing themselves wise they became fools, and changed the glory of the incorruptible God into an image made like to corruptible man.”—“And even as they did not like to retain God in their knowledge, God gave them over to a reprobate mind.”* The secret cause of all these evils was a latent “enmity against God,”—“they did not *like* to retain God in their knowledge.” From this proceeded, in the first instance, a *practical habit* of Atheism,—“they glorified Him not as God, neither were thankful;” and from hence proceeded, in the second instance, the gross superstition of *Polytheistic belief and worship*,—“they changed the glory of the incorruptible God into an image made like to corruptible man,”—“they changed the truth of God into a lie, and worshipped and served the creature more than the Creator, who is blessed for ever.”

But while practical Atheism and blind Superstition are the two extremes which divide among them the great majority of mankind, there have always been some more thoughtful and inquiring spirits, who have sought to penetrate the mysteries of their being, and to account for the present order of things. They have asked, and have attempted to answer, such questions as these:—What are we? what was our origin? what is our destination? Whence came this stupendous fabric of Nature? is it self-existent and eternal? or did it come into being at some definite time? If not eternal, how was it produced? by chance or by design? by inevitable fate or by spontaneous will? Whence the order which pervades it, and the beauty by which it is adorned? Whence, above all, the evil, moral and physical, by which it is disfigured and cursed? And in reply to these thoughtful

* Romans i. 21, 28.

questionings, various theories have been invented to account for the existing order of things, while not a few of the most daring thinkers have abandoned the subject in despair, and, holding it to be an insoluble problem, have resigned themselves to the cheerless gloom of Scepticism. In reviewing all these speculations and theories, we must bear in mind that their authors and advocates, although more thoughtful and inquisitive than the great majority of mankind, were equally subject to the same corrupting influence,—“the evil heart of unbelief,”—and that the same cause which produced practical Atheism in some, and abject Superstition in others, may also have operated, but more insidiously, in producing Speculative Infidelity in the minds of those who are more addicted to abstruse philosophical inquiries. We must seek to get down to the root of the evil, if we would suggest or apply an effectual remedy; we must not deal with the symptoms merely, but search for and probe the seat of the disease; and if that be the disordered state of our moral nature, which gives rise to fears and forebodings as often as we think of God, no remedy will be effectual which does not remove our distrust, suspicion, and jealousy; and no argument, however conclusive, will have any practical power which does not present such views of God as to make Him an object of confidence, and trust, and love. It is of vast importance that this fundamental truth should be kept steadily in view, for as the disordered state of our moral nature is the rudimental source both of practical Atheism and of popular Superstition, so it is also the prolific parent of Speculative Infidelity in every variety of form: and as long as the remedy is not applied to the root of the disease, the Atheist, if forced to relinquish one theory, will only betake himself to another, and after having gone the round of them all

will rather throw himself into the vortex of utter and hopeless scepticism, than acknowledge a God whom he cannot love,—a Judge whom he cannot but dread.—Christianity alone can supply an effectual remedy, and it is such a remedy as is fitted to cure alike the habitual ungodliness, the abject superstition, and the speculative infidelity, which have all sprung from the same prolific source. It exhibits such a view of the character and will of God as may relieve us from the fears and forebodings of guilt, and, by revealing a Divine method of reconciliation, may place us in a position the most favourable for a calm and dispassionate consideration of the natural evidence in favour of His Being, Perfections, and Moral Government.

But while the grand parent cause of all Atheism,—whether practical or speculative, dogmatic or sceptical,—is to be found in the disordered state of our own moral nature, there are other subordinate causes in operation, which may be regarded either as *incidental occasions*, or as *plausible pretexts*, for this form of unbelief. The internal causes are the primary and most powerful; but there are external influences which co-operate with these, and serve to stimulate and strengthen them. Among the incidental occasions of Atheism, we might mention a defective, because irreligious, education in early life,—the influence of ungodly example and profane converse,—and the authority of a few great names in literature or science which have become associated with the cause of Infidelity: and among the plausible pretexts for Atheism we might mention the inconsistencies of professed believers and especially of the clergy,—the divided state of the religious world, as indicated by the multiplicity of sects,—the bitterness of religious controversy,—the supposed opposition of the Church to the progress

of science and the extension of civil and religious liberty,—and the gross superstitions which have been incorporated with Christianity itself in some of the oldest and most powerful States of Europe. These and similar topics may be justly said to be the “loci communes of Atheism,” and they are often employed in eloquent declamation or indignant invective, so as to make a much deeper impression, especially on young and ardent minds, than their intrinsic weight or real argumentative value can either justify or explain. Infidel writers have not been slow to avail themselves of these pretexts for unbelief, in regard alike to Natural and Revealed Religion; and have artfully identified Religion with Superstition, and Christianity with Popery, as if there were no consistent or tenable medium between the two. And, perhaps, of all the incidental occasions or external inducements to Atheism, none has exerted so much influence over reflecting minds as the wide-spread prevalence of Superstition;—for never was Atheism more general among the cultivated classes in ancient times than in the States of Greece, whose hospitable Pantheon enclosed the gods of all nations, and whose inhabitants were “exceedingly given to idolatry;”—and nowhere, in modern times, has Atheism been more explicitly avowed or more zealously propagated than in those countries of Europe which are most thoroughly subjugated to the superstitions of the Papacy. In the graphic words of Robert Hall, “Infidelity was bred in the stagnant marshes of corrupted Christianity.”*

Having described the nature, evinced the reality, and referred to the permanent and occasional causes, of Atheism, we may briefly advert to *its moral and social influence*. On this point three distinct questions have

* HALL'S “Works,” I. 128.

been raised: *first*, whether Atheism be conducive to personal happiness? *secondly*, whether it be compatible with pure morality and virtue? and, *thirdly*, whether it be consistent with social well-being,—with the authority of the laws, and the safety or comfort of the community? In considering these questions it is necessary to remember that in no age, and in no region of the world, has Speculative Atheism been universal, or even so prevalent as to exhibit on a large scale a full development of its legitimate results. It has always been in a minority, and has been continually checked, modified, and controlled by the prevailing beliefs of society; and, whether these beliefs were purely religious or grossly superstitious, they have exerted a powerful influence in counteracting the native tendencies of atheistic speculation. “The effects of Atheism,” as Mr Estlin justly observes, “we have not yet in any great degree experienced, as the mental habits of those who hold it in speculation were in general formed before they had adopted their present principles, by the imperceptible influence of that religion which they now traduce.”* Perhaps the nearest approach to a state of prevailing Atheism which has ever been exhibited in the history of the world is to be found in France at the era of the first Revolution, when Christianity was publicly abjured, and the goddess of Reason substituted for the God of the Bible. But that even this fearful outburst of impiety did not proceed from the universal prevalence of Speculative Atheism among the great body of the people; that there still existed in the heart of society some germs of religious feeling, and certain instinctive or traditionary beliefs which operated as a restraint and check even during that season of revolutionary phrensy,—is sufficiently evinced by the reaction

* ESTLIN'S “Discourse,” p. 57.

which speedily occurred in the public mind, and which restored Catholicism itself, as if by magic, to its wonted supremacy; while the anti-social tendency of Atheism, in so far as it did prevail, was strikingly attested by the fact, that the leading actors in that fearful drama found themselves compelled to provide for the public safety by restoring at least the forms of religious worship, and to acknowledge that "if there were no God, it would be necessary to invent one." "The true light," says the eloquent Robert Hall, "in which the French Revolution ought to be contemplated is that of a grand experiment on human nature." "God permitted the trial to be made. In one country, and that the centre of Christendom, Revelation underwent a total eclipse, while Atheism, performing on a darkened theatre its strange and fearful tragedy, confounded the first elements of society, blended every age, rank, and sex in indiscriminate proscription and massacre, and convulsed all Europe to its centre,—that the imperishable memorial of these events might teach the last generations of mankind to consider Religion as the pillar of society, the safeguard of nations, the parent of social order, which alone has power to curb the fury of the passions, and secure to every one his rights; to the laborious the reward of their industry, to the rich the enjoyment of their wealth, to nobles the preservation of their honours, and to princes the stability of their thrones." *

In the case of individuals holding atheistic opinions, but living in the midst of Christian society, the full influence of these opinions cannot be felt, nor their effects fully developed, in the presence of those restraints and checks which are imposed by the religious beliefs and observances of others. We cannot estimate their in-

* ROBERT HALL, "Modern Infidelity Considered," I. 38, 67.

fluence either on the personal happiness, or the moral character, or the social welfare of men, without taking this circumstance into account. To arrive at even a tolerable approximation to a correct judgment, we must endeavour to conceive of Atheism as prevailing universally in the community,—as emancipated from all restraint, and free to develop itself without let or hindrance of any kind,—as tolerated by law, and sanctioned by public opinion, and unopposed by any remaining forms either of domestic piety or of public worship,—as reigning supreme in every heart, and as forming the creed of every household: and thus conceiving of it as an inveterate, universal epidemic, we are then to inquire whether, and on what conditions, society would in such a case be possible, and how far the prevalence of Atheism might be expected to affect the morals and welfare of mankind?

The question has been raised whether Atheism might not be more conducive than Religion to *the personal happiness of individuals*? and some, who have confounded Religion with Superstition, have not hesitated to answer that question in the affirmative. The conviction that there is no God, and no moral government, and no state of future retribution, could it only be steadfastly and invariably maintained, might serve, it has been thought, to relieve the mind of many forebodings and fears which disturb its peace, and, if it could not ensure perfect happiness, might act at least as an opiate or sedative to a restless and uneasy conscience. In the opinion of Epicurus and Lucretius, tranquillity of mind was the grand practical benefit of that unbelief which they sought to inculcate respecting the doctrine of Providence and Immortality. They frequently affirmed that *fear* generated superstition, and that superstition, in its turn, deepened and perpetuated the fear from which it sprung; that

the minds of men must necessarily be overcast with anxiety and gloom, as long as they continued to believe in a moral government and a future state; and that the only sovereign and effectual antidote to superstitious terror is the spirit of philosophical unbelief. Similar views are perpetually repeated in the eloquent but declamatory pages of "The System of Nature." But the remedy proposed seems to be subject to grave suspicion, as one that may be utterly powerless, or at the best exceedingly precarious; for, first of all, the fears which are supposed to have generated Religion must have been anterior to it, and must have arisen from some natural cause, which will continue to operate even after Religion has been disowned. They spring, in fact, necessarily out of our present condition as dependent, responsible, and dying creatures; and they can neither be prevented nor cured by the mere negations of Atheism; we can only be raised above their depressing influence by a rational belief and well-grounded trust in the being and character of God. Again, if the denial of a Providence and of a future state might serve, were it associated with a full assurance of certainty, to relieve us from *the fear* of retribution hereafter, it must equally destroy *all hope* of immortality, and reduce us to the dreary prospect of annihilation at death,—a prospect from which the soul of man instinctively recoils, and by which his whole life would be embittered just in proportion as he became more thoughtful and reflective. Unbelief can operate as a sedative to fear only in so far as it is habitual, uniform, undisturbed by any inward misgivings or apparent uncertainty; but in the case of men not utterly thoughtless or insensible, it is rarely, if ever, found to possess this character: it is often shaken, and always liable to be disquieted, by occasional convictions, which no amount of vigilance can ward

off, and no strength of resolution repress: it is maintained only by a painful and sustained conflict, which is but ill concealed by the vehemence of its protestations, and often significantly indicated by the very extravagance of its zeal. Add to this—that Atheism itself affords no guarantee against future suffering. It may deny a Providence here and a judgment hereafter,—it may even deny a future state of conscious existence, and take refuge in the hope of annihilation that it may escape from the dread prospect of retribution; but it cannot affirm the *impossibility*, it can only doubt the *certainly* of these things; and in their bare possibility there is enough at once to impose an obligation to serious inquiry, and to occasion the deepest anxiety, especially in seasons of affliction or danger, which awaken reflective thought. “*Atheism*,” said the acute but sceptical Bayle, “*does not shelter us from the fear of eternal suffering.*” But even if it did, what influence would it exert on our present happiness? Would it not limit our enjoyments by confining our views within the narrow range of things seen and temporal? Would it not deprive us of the loftiest hopes? Would it not repress our highest aspirations, by interdicting the contemplation of the noblest Object of thought,—the Ideal Standard of truth and excellence,—the Moral Glory of the Universe? Would it not diminish the pleasure which we derive even from earthly objects, and aggravate the bitterness of every trial? How wretched must be the condition of those who are “proud of being the offspring of chance, in love with universal disorder,—whose happiness is involved in the belief of there being no witness to their designs, and who are at ease only because they suppose themselves *inhabitants of a forsaken and fatherless world!*” * “No one

* ROBERT HALL on Modern Infidelity, I. 70.

in creation," said Jean Paul, "is so alone as the denier of God: he mourns, with an orphaned heart that has lost its great Father, by the corpse of Nature which no World-Spirit moves and holds together, and which grows in its grave; and he mourns by that corpse till he himself crumble off from it. The whole world lies before him, like the Egyptian Sphynx of stone, half-buried in the sand; and the All is the cold iron mask of a formless Eternity." *

But the malign influence of Atheism on personal happiness will become more apparent, if we consider its tendency to affect the *moral springs of action*, on which happiness mainly depends. The question, whether Atheism be compatible with moral virtue, or whether an Atheist may be a virtuous man, is one of those that can only be answered by discriminating aright between the different senses of the same term. In the Christian sense of virtue, which comprehends the duties of both tables of the Law, and includes the love of God as well as of man, it is clear that the Atheist cannot be reputed virtuous, since he wants that which is declared to be the radical principle of obedience,—the very spirit and substance of true morality. But in the worldly sense of the term, as denoting the decent observance of *relative* duty, it is possible that he may be so far influenced by considerations of prudence or policy, or even by certain natural instincts and affections, as to be just in his dealings, faithful to his word, courteous in his manners, and obedient to the laws. But this secular, prudential morality is as precarious in its practical influence as it is defective in its radical principle. Atheism saps and undermines the very foundation of Ethics. The only law which it can recognise (if that can be called a law

* T. CARLYLE, "Essays," II. 142.

in any sense which is not conceived of as the expression of a Supreme Will) is, either the greatest happiness of the individual, or the greatest happiness of the greatest number; but whether it assumes the form of *Felicitarian* or of *Utilitarian* calculation, it degenerates into a process of arithmetic, and is no longer a code of morals. The fundamental idea of Duty is wanting, and can only be supplied from a source which the Atheist ignores. By denying the existence of God, he robs the universe of its highest glory,—obliterates the idea of perfect wisdom and goodness,—and leaves nothing better and holier as an object of thought than the qualities and relations of earthly things. He degrades human nature, by doing what he can to sever the tie which binds man to his Maker, and which connects the earth with Heaven. He circumscribes his prospects within the narrow range of “things seen and temporal,” and thus removes every stimulus to dignity of sentiment, and every incentive to elevation of character. His wretched creed (if a series of cold negations may be called a creed) must be fatal to every disinterested and heroic virtue; let it prevail, and the spirit of self-sacrifice will give place to Epicurean indulgence, and the age of martyrdom will return no more. Substitute Nature, or even Humanity, for God; and the eternal standard of truth and holiness and goodness being superseded, every moral sentiment will be blighted and obscured. Conscience has a relation to God similar to that which a chronometer bears to the sun: blot the sun from the sky, and the chronometer is useless,—deny God, and conscience is powerless. And the vices which, if not subdued, were yet curbed and restrained by the overawing sense of an unseen omnipresent Power, will burst forth with devastating fury, snapping asunder the feebler fetters of human law,

and overleaping the barriers of selfish prudence itself,—vanity and pride, ambition and covetousness, sensual indulgence and ferocious cruelty, will rise into the ascendancy, and establish their dark throne on the ruins of Religion.

If such be the natural and legitimate effect of Atheism on the personal happiness and moral character of individuals, we can be at no loss to discover what must be its influence on society at large. For society is composed of individuals, and its character and welfare depend on the aggregate sentiments of its constituent members. The question whether Atheism might not be consistent with social well-being, with the continued authority of the laws, and the general comfort of the community, is answered historically by the fact that in modern France the Reign of Atheism was the Reign of Terror, and that in ancient Rome its prevalence was followed by such scenes of proscription, confiscation, and blood as were then unparalleled in the history of the world. The truth is, that wherever Atheism prevails, GOVERNMENT BY LAW must give place to GOVERNMENT BY FORCE; for law needs some auxiliary sanction; and if it be deprived of the sanction of Religion, it must have recourse, for its own preservation and the prevention of utter anarchy, to the brute power of the temporal sword. It is worse than useless to discuss, in this connection, the question, revived by Bayle,* whether Atheism or Superstition should be regarded as the worst enemy to the Commonwealth, for it has no relevancy to our present inquiry; we are not contending for either, we are objecting to both; and we are under no necessity of choosing the

* P. BAYLE, "Pensées diverses Ecrites à un Docteur de Sorbonne a l'Occasion de la *Comète*," 4 vols. Also his "Reponse aux Questions d'un Provincial," II. 688, IV. 101, 112.

least of two evils, when we have the option of "pure and undefiled Religion." But we may observe in passing that, historically, it has been found possible to keep society together, and to maintain the authority of law with a greater or less measure of civil liberty, where Superstition has been generally prevalent; whereas there is no instance on record of any thing approaching to national Atheism, in which government by law was not speedily superseded by anarchy and despotism. And the reason of this difference may be that in every system of Superstition, whether it be a corruption of Natural or of Revealed Religion, "some faint embers of sacred truth remain unextinguished,"—some convictions which still connect man with the spiritual and the eternal, and which are sufficient, if not to enlighten and pacify the conscience, yet to keep alive a sense of responsibility and a fear of retribution; "certain sparks," as Hooker calls them, "of the light of truth intermingled with the darkness of error," which may have served a good purpose in maintaining civil virtue and social order, although these would have been far better secured by the prevalence of a purer faith.

There are some circumstances, of a novel and unprecedented nature, which impart a solemn interest to our present inquiry. At the beginning of the present century, Robert Hall, referring to the unbelief which preceded and accompanied the first outburst of the Revolution in France, mentioned *three* circumstances which appeared to him to be "equally new and alarming." He regarded it as the first attempt which had ever been witnessed on an extensive scale to establish the principles of Atheism,—as the first attempt to popularise these principles by means of a literature addressed and adapted to the common people,—and as the first systematic attempt to

undermine the foundations, and to innovate on the very substance, of Morals.* But if we compare the first with the new *Encyclopédié*,—the former concocted by Voltaire, D'Alembert, and Diderot, the latter by Pierre Leroux and his associates,—we shall find that Infidelity has assumed greater hardihood, and has appeared under less restraint in recent than in former times; while the speculations of Comte and Crousse are as thoroughly atheistic as those of D'Holbach himself. For, however irreligious and profane Voltaire and his associates might be, and however devoted to their avowed object of crushing Christ and His cause, so significantly indicated by their motto and watchword, “*Ecrasez l'Infame* ;”† yet they continued, as a party, to advocate Deism, and seemed at least to oppose the bolder speculations of the author of the “*Système de la Nature*.” Both Voltaire and Frederick the Great wrote in reply to its atheistic tenets.‡ But now in France these tenets are openly avowed and zealously propagated. Nor is this fatal moral epidemic confined to our continental neighbours: there is too much reason to fear that it has infected, to some extent, the artizans of our own manufacturing towns, and even, in some quarters, the inhabitants of our rural districts. The Communists of France have their analogues in the Socialists of Britain; and the periodical press, although for the most part sound, or at least innocuous, has lent its aid to the dissemination of the grossest infidelity which the Continent has produced. The “*Leader*” gives forth Lewes's version of Comte's Philosophy; and the “*Glasgow Mechanics' Journal*,” a digest of his Law of Human Progress, which is essentially

* HALL on Modern Infidelity, I. 59, 64.

† ABBÉ BARRUEL, “*Memoires pour servir a l'Histoire du Jacobinisme*,” I. 31, 131, 135, 184, 357.

‡ Ibid, I. 22, II. 190, 193.

atheistic.* Nor is indigenous Atheism wanting. Mr Mackay in his "Progress of the Intellect,"—Atkinson and Martineau in their "Letters on the Laws of Man's Nature and Development,"—and Mr G. Holyoake in "The Reasoner," have sufficiently proved that if Atheism be an exotic, it is capable of taking root and growing up in the land of Bacon, Newton, and Boyle.

* "The Leader;" a series of Articles on Comte's Philosophy, by G. H. LEWES, April 7, 10, 17, &c. &c., 1852.—"The Glasgow Mechanics' Journal."

CHAPTER II.

THEORIES OF DEVELOPMENT.

THERE have been various applications of the general principle of Development, by means of which an attempt has been made to explain the origin of all things by Natural Laws, so as to exclude the necessity of any Divine interposition, either for the creation of the world, or for the introduction and establishment of Christianity itself.—It has been applied, *first*, to explain the origin of worlds and planetary systems, by showing that, certain specified conditions being presupposed, there are fixed mechanical laws which might sufficiently account for the production of the earth and of the other planets and satellites of our Solar System, without any special interposition of Divine power at the commencement of the existing order of things. It has been applied, *secondly*, to explain the origin of the various tribes or races of vegetable and animal life, and especially the production of the human race, by showing that the existing types may have sprung, by a process of gradual development, from inferior races previously existing, and that these again may have been produced by the action of chemical agents in certain favourable conditions. It has been applied, *thirdly*, to explain all the most important phenomena of Human History, and to illustrate the law which is supposed to

determine and regulate the progressive course of civilization, so as to account, on natural principles, for the origin and prevalence of the various forms of Religion, and even for the introduction, in its appointed season, of Christianity itself, without having recourse to any thing so utterly unphilosophical as the idea of a Divine Revelation, or the supposition of supernatural agency. And it has been applied, *fourthly*, to explain the order, and to vindicate the use, of those additions both to the doctrines and rites of primitive Christianity, which Protestants have denounced as *corruptions*, but which Popish and Tractarian writers defend as *developments*, of the system that was originally deposited, like a prolific germ or seed, in the bosom of the Catholic Church.

It is the more necessary to examine the various forms of this theory, because unquestionably it can appeal to not a few *natural analogies*, which may serve, on a superficial view, to give it the aspect of verisimilitude. For many of the most signal works of God have been manifestly framed on the principle of gradual growth, and matured by a process of progressive development. We see in the natural world a small seed deposited in the earth, which, under the agency of certain suitable influences, germinates and springs up, producing first a tender shoot, then a stem, and branches, and leaves, and blossoms, and fruit; and every herb or tree, "having seed in itself," makes provision for the repetition of the same process, and the perpetuation and indefinite increase of its kind. The same law is observed in the animal kingdom, where a continuous race is produced from a single pair. And even in the supernatural scheme of Revelation itself, the truth was gradually unfolded in a series of successive dispensations;—the First Promise being the germ, which expanded as the Church advanced, until it reached

its full development in the Scriptures of the New Testament. These and similar instances may suffice to show that both in the natural and supernatural Providence of God, He has been pleased to act on the principle of *gradual and progressive*, as contradistinguished from that of *instant and perfect* production; and they may seem, at first sight, to afford some natural analogies in favour of the radical idea on which the various modern Theories of Development are based. In such circumstances it would be an unwise and dangerous course, either to overlook the palpable facts which Nature and Revelation equally attest, or to deny that they may afford signal manifestations of the manifold wisdom of God. Nor is it necessary for any enlightened advocate of Theism to betake himself to these expedients,—he may freely admit the existence of *such* cases of gradual development,—he may even appeal to them as illustrative of the order of Nature, and the design which that order displays; and the only question which he is at all concerned to discuss amounts in substance to this,—Whether the method of production which is pursued in the *ordinary course* of Nature can account for the *original commencement* of the present system of things?

But the state of the question, and the right application of the argument, may be best illustrated by considering each of the *four* forms of the theory separately and in succession.

§ 1. THEORY OF COSMICAL DEVELOPMENT, OR OF THE PRODUCTION OF WORLDS AND PLANETARY SYSTEMS BY NATURAL LAW.—“THE VESTIGES.”

The doctrine of a Nebular Cosmogony was first suggested by some observations of the elder Herschell on

those cloud-like appearances which may be discerned in various parts of the heavens by the aid of the telescope, or even, in some cases, by the naked eye. It assumed a more definite form in the hands of La Place, although even by him it was offered, not as an ascertained discovery of Science, but simply as a hypothetical explanation of the way in which the production of the planets and their satellites *might* possibly be accounted for by the operation of the known laws of Nature.

The explanation of the whole theory may be best understood by dividing it into two parts: the *first* being that which attempts to account for the formation of planets and satellites, *on the assumption of the existence of a central sun, and of certain other specified conditions*;—the *second* being that which undertakes to account for the formation of the sun itself, on the assumption of the existence of *a diffused nebulous matter* in space, or, as it has been aptly called, “a universal Fire-Mist.” *

When the theory is limited to the explanation of the origin of the planets and their satellites, the original condition of our solar system is assumed to have been widely different from what it now is; the sun is supposed to have existed for a time alone,—to have revolved upon his axis,—and to have been surrounded with an atmosphere expanded by intense heat, and extending far beyond the limits of our system as it now exists. This solar atmosphere revolved, like the sun itself, around its axis: but its heat, constantly radiated into sidereal space, gradually diminished, and the atmosphere being contracted in proportion as it cooled, the rapidity of its rotation was accelerated, until it reached the point at which the central attraction was overcome by the centrifugal force, and then a zone of vapour would be detached

* “Vestiges of the Natural History of Creation,” p. 17.

or thrown off, which might either retain its form as a nebulous ring, like the ring of Saturn, or first breaking into fragments, from some want of continuity in its structure, and afterwards coalescing into one mass, might be condensed into a planet as the vapour continued to cool. These rings or planets, thus detached from the central atmospheric mass, would continue to revolve, in virtue of the force originally impressed upon them, and their motion would be nearly circular, in the same plane and in the same direction with that of the Sun. The first planet, so formed, must have been that at the extreme limit of our solar system,—the second the next in point of remoteness from the centre, and so on: each resulting from the operation of the same natural laws, and emerging into distinct existence at that precise point in the gradual cooling and contraction of the atmosphere at which the centrifugal became stronger than the centripetal force. But each planet might also be subjected to the same process of cooling and contracting, and might therefore throw off, under the operation of the same mechanical laws, zones of vapour more or less dense, which might consolidate into moons or satellites, and which should also revolve, like the planets, round their primary. Thus Uranus has six satellites, and Saturn seven; while the latter has also thrown off two zones so perfectly uniform in their internal structure that they remain unbroken, and constitute a double ring around the planet.

In this *first* form of the theory, which assumes the existence of the Sun and its Atmosphere, and the rotation of both round an axis, La Place sought to give a scientific form to the speculations of Sir William Herschell on the condensation of Nebulæ, by proving simply the *dynamical possibility* of the formation of a planetary system by such

means, according to the known laws of matter and motion : but he did not affirm the scientific certainty of his conjecture, and far less the actual production of the solar system in this way. He has been followed by M. Comte, who has attempted to furnish, if not a complete demonstration, at least a plausible mathematical verification, of the hypothesis.*—Utterly excluding all supernatural agency in the work of Creation, he equally excludes from the problem which he attempts to solve, the origin of the Sun and its Atmosphere ; and confining himself to the task of accounting, in the way not of demonstrative certainty, but merely of plausible hypothesis, for the formation of the planets and satellites of our solar system, he conceives the theory of La Place to be susceptible of such a numerical verification as is sufficient to give it a high degree of verisimilitude. Assuming that the periodic time of each planet must be equal to that of the portion of the solar atmosphere of which it was formed at the era when it was thrown off, and combining the theorems of Huygens on the measure of centrifugal forces with Newton's law of gravitation, he establishes a simple equation between the time of the rotation of each zone or section of the solar atmosphere, and the distance of the corresponding planets. On applying this equation to the various bodies of our system, he found that the periodic time of the moon agrees, at least within the tenth of a day, with the duration of the earth's revolution when her atmosphere is supposed to have extended to the moon ; and that the periodic times of the planets

* AUGUSTE COMTE, "Cours de Philosophie Positive," II. 363, 376. The merits of this attempt are very differently estimated by two competent authorities: by PROFESSOR SEDGWICK in the "Edinburgh Review," No. 82, p. 22 ; and by SIR DAVID BREWSTER in the "North British Review," No. 3, p. 476.

maintain a similar correspondence with what must have been the duration of the solar revolution when they were severally thrown off from its atmosphere. It is the less necessary, however, to enter on a detailed exposition of his argument, because he admits that it can afford at the utmost only a probable proof of an hypothesis, and further because it is expressly limited to the production of the planets and their satellites, while not only is the existence of the solar atmosphere presupposed, but also its existence in *a certain state*, and with *several determinate conditions*; while no account whatever is given of the origin either of the sun or its atmosphere, and none of the laws or conditions on which the whole process of development is confessedly dependent.

But the author of "The Vestiges" takes a much wider range, and attempts a more arduous task. He seeks to account for the origin both of Suns and of Solar Systems by the agency of natural laws. Not content with the more limited form of the theory, which M. Comte holds to be the only legitimate or practical object of scientific treatment, he holds that the origin of the Sun itself, and the *forms*, the *positions*, the *relations*, and the *motions*, of all the heavenly bodies, may be accounted for by supposing a previous state of matter, fluid or gasiform, subject only to the law of gravitation. The Nebular Cosmogony, which is well characterised by himself as his "*version of the romance of Nature*," is based on the assumption that "the nebulous matter of space, previously to the formation of stellar and planetary bodies, must have been a universal FIRE-MIST,"* in other words, a diffused luminous vapour, intensely hot, which might be gradually condensed into a fluid, and then into a solid state, by losing less or more of its heat. The existence of such a lumi-

* "Vestiges," p. 11, 23.

nous matter being assumed, and it being further supposed that it was not entirely uniform or homogeneous, but that it existed in various states of condensation, and that it had "certain nuclei established in it which might become centres of aggregation for the neighbouring diffused matter,"—the author attempts to show that "on such centres a rotatory motion would be established wherever, as was the most likely case, there was any obliquity in the lines of direction in which the opposing currents met each other,—that this motion would increase as the agglomeration proceeded,—that at certain intervals, the centrifugal force acting on the remoter part of the rotating mass would overcome the agglomerating force; and that a series of rings would thus be left apart, each possessing the motion proper to itself at the crisis of separation. These, again, would only continue in their annular form, if they were entirely uniform in their internal structure. There being many chances against this, they would probably break up in the first instance, and be thereafter "agglomerated into one or several masses, which would become representatives of the primary mass, and perhaps give rise to a progeny of inferior masses."—In support of this theory, reference is made to the existence, at the present moment, of certain cloud-like nebulæ, or masses of diffused luminous matter, exhibiting a variety of appearances as if they were in various degrees of condensation, and which are described as "solar systems in the process of being formed" out of a previous condition of matter. And the observations of M. Plateau of Ghent are adduced as affording an experimental verification of some parts of the theory, and, especially, as serving to explain the spherical form of the planets, the flattening at the poles, and the swelling out at the equator.

It does not belong to our proper province, nor is it necessary for our present purpose, to discuss the merits of this theory, considered as a question of Science: this has been already done, with various degrees of ability, but with unwonted unanimity, by some of the ablest men of the age,—by Whewell, Sedgwick, and Mason in England, by Sir David Brewster and Mr Miller in Scotland, and by Professor Dod and President Hitchcock in America.* But viewing it simply in its relation to the Theistic argument, we conceive that the adverse presumption which it may possibly generate in some minds against the evidence of Natural Theology, will be effectually neutralised by establishing the following positions.

—That it is *a mere hypothesis*, and one which, from the very nature of the case, is incapable of being proved by such evidence as is necessary to establish *a matter of fact*.

—That the progress of scientific discovery, so far from tending to verify and confirm, has served rather to disprove and invalidate, the fundamental assumption on which it rests.

—That even were it admitted, either as a possible, or probable, or certain explanation of the origin of the present planetary systems, it would not necessarily destroy the evidence of Theology, nor establish on its ruins the cause of Atheism.—

Each of these positions may be conclusively established, and the three combined constitute a complete answer to

* WHEWELL, "Indications of a Creator."

SEDGWICK'S "Discourse," 5th Edition. "Edinburgh Review," No. 82.

SIR D. BREWSTER, "North British Review," No. 3.

PROFESSOR DOD, "Princeton Theological Essays," Second Series.

H. MILLER, "Footprints of the Creator."

T. MONCK MASON, "Creation by the Immediate Agency of God."

the theory of Development, in so far as it has been applied in the support or defence of Atheism.

1. That it is a mere hypothesis or conjecture, designed, not to establish the *historical fact*, but to explain merely the *dynamical possibility* of the production of the planetary bodies by the operation of known natural laws, must be admitted, I think, even by its most enthusiastic admirers. It might have seemed, indeed, to have something like a basis of fact to rest upon, had the conception of the elder Herschell been verified, when he announced the existence of a nebulous fluid, capable of being distinguished, by certain well-defined marks, from unresolved clusters of stars; but even then it presupposed so many postulates, which could in no way be established by experimental or historical evidence, that it could scarcely be regarded in any other light than as an ingenious speculation or a splendid conjecture. For let it be considered, first of all, that the theory proceeds on the assumption of the existence and wide diffusion of a nebulous fluid of whose reality there is no actual proof; *secondly*, that it necessarily requires, also, the supposed existence of certain favourable conditions; and *thirdly*, the operation of certain invariable laws,—and it will be manifest at once that it is purely hypothetical throughout, and that it includes a variety of topics which never have been, and never can be, made the subjects of experimental verification. For it postulates, in the words of an acute writer, “the establishment of nuclei in the body of the elemental mass, as well as the action of heat on its substance, and then seeks to explain the concentration of the nebulous particles into these nuclei by the force of gravitation,—the rotation of the bodies so produced by the confluence of the nebulous fluid,—the separation of a portion of the outer surface of these revolving masses in

the form of rings,—the disruption of these rings,—and the subsequent recomposition of their fragments into separate spheres, answering to the planets and satellites of our system.”* But even were the existence of a nebulous fluid admitted, we have no access to know what was its internal structure; we cannot determine whether it was uniform and homogeneous throughout, or whether it contained nuclei which might become centres of aggregation; we have no means of estimating the intensity of the heat which belonged to it, or of calculating the process by which it was dispersed, so as to occasion the condensation of successive portions of the mass. No eye ever saw the separation of any part of it in the form of a ring,—or the disruption of that ring,—or the subsequent recomposition of its fragments into a solid sphere. And even had all this been matter, not of mere conjecture, but of actual observation, it would still have left much to be explained which can only be accounted for by ascribing it to a designing Intelligent Cause.

2. The progress of scientific discovery, so far from tending to verify, has served rather to invalidate the fundamental assumption on which the whole theory depends. That assumption was the existence of a Nebulous Fluid or Fire-Mist, capable of being distinguished, by certain characteristic marks, from unresolved nebulae or clusters of stars. The existence of any such fluid has become more and more doubtful, in proportion as Astronomers have been enabled, with the aid of larger and better constructed telescopes, to resolve several nebulae which had previously defied the power of less perfect instruments. We do not affirm that every cluster

* THOMAS MONCK MASON, “Creation by the Immediate Agency of God, as opposed to Creation by Natural Law; being a Refutation of ‘The Vestiges,’” &c., p. 34.

has been already resolved, nor is it necessary for the purposes of our argument to suppose that, at any future time, this stupendous achievement is likely to be effected; for it is a very obvious consideration, that just in proportion as our telescopic powers are enlarged so as to enable us to resolve many of the nearer nebulæ, they must also bring within the range of our extended vision *others* more remote and hitherto unperceived, which may continue to exhibit the same cloud-like appearance as the former, until, by a new improvement of the telescope, we may succeed in separating them into distinct stars; and even then the march of discovery is not ended,—we may reasonably expect that with every fresh increase of telescopic vision, new clusters will be brought into view, and new clouds appear in the utmost verge of the horizon. But, unquestionably, the progress which has already been made in this direction affords a strong presumption in favour of the idea, that the apparent nebulosity of those masses which still appear, even to our best telescopes, as cloud-like vapours, is to be ascribed rather to the imperfection of our instruments than to any difference between them and such as have been already resolved. Sir John Herschell, a high authority in such a case, tells us that “we have every reason to believe, at least in the generality of cases, that a nebula is nothing more than a cluster of stars.”* Sir David Brewster is equally explicit:—“It was certainly a rash generalization to maintain that nebulæ differed essentially from clusters of stars, because existing telescopes could not resolve them. The very first application of Lord Rosse’s telescopes to the heavens overturned the

* SIR JOHN HERSCHELL, “Memoir on Nebulæ and Clusters of Stars,” London Philosophical Transactions, 1833.

“Edinburgh Review,” No. 82. p. 19.

hypothesis; and with such unequivocal facts as that instrument has brought to light, we regard it as a most unwarrantable assumption to suppose that there are in the heavenly spaces any masses of matter different from solid bodies, composing planetary systems.”* And Professor Nichol, while he gracefully acknowledges that he has “somewhat altered the views which he formerly gave to the public, as the highest then known and generally entertained, regarding the structure of the Heavens,” states, as the result of more mature reflection, that “the supposed distribution of a self-luminous fluid, in separate patches, through the heavens, has, beyond all doubt, been proved fallacious by that most remarkable of telescopic achievements,—the resolution of the great nebula in Orion into a superb cluster of stars; and that this discovery necessitates important changes in previous speculations on Cosmogony.” †

In short, Lord Rosse’s observations at Parsonstown have conclusively proved that what appeared to be a nebula was in reality a cluster of stars; and while they still leave many nebulae unresolved, they afford a strong warrant for believing that discoveries in the same direction might be indefinitely extended in proportion to the increase of telescopic power.

3. But even were the Nebular Hypothesis admitted, and were the Theory of Development by Natural Laws conceived to afford a satisfactory explanation of the origin of the planetary systems, it would not follow as a necessary consequence, that the peculiar evidence of Theism,—that on which it mainly depends, and to which it makes its most confident appeal,—would be thereby destroyed, or even diminished. The only legitimate result of such

* “North British Review,” No. 3, p. 477.

† PROFESSOR NICHOL, “The System of the World,” Preface, vi., and 108.

a doctrine would seem to be, that we must distinguish aright between a work of *Mediate*, and a work of *Immediate*, Creation. In the Bible each of these is distinctly recognised: we have a specimen of the one in the creation of the first man by the direct agency of Divine power: we have a specimen of the other in the creation, less direct but equally real, of all his natural posterity, through the medium of ordinary generation. Men do not cease to be the *creatures* of God, because they are born of their parents, in virtue of that creative word, "Be fruitful, and multiply, and replenish the earth;" and hence children are admonished "to remember *their Creator* in the days of their youth." * The work of creation is equally real and equally Divine, whether it be effected *mediately* or *immediately*,—with or without the intervention of means,—by the direct and instantaneous exertion of Almighty power, or by the gradual and successive operation of second causes acting according to established laws. In the ordinary course of Providence, the method of mediate production, gradual growth, and progressive development may be observed in innumerable instances, but it can never be justly held to exclude, or even to obscure, the evidence of a presiding Intelligence and a supernatural Power. On the contrary, it may serve rather to enhance that evidence; since the very arrangements and provisions which have been made with a view to the reproduction of every thing after its kind, may bear on them the legible impress of a designing Mind and an ordaining Will. Thus year by year continually, the whole inhabitants of the world are supported by the fruits of harvest, which are produced and matured under the action of natural laws; yet every intelligent Theist ascribes the result ultimately to the goodness, wisdom,

* Ecclesiastes xii. 1.

and power of God, and sees in the very processes by which it is brought to pass some of the most signal proofs of these Divine perfections.

Now, as this method is followed in the work of Providence, which may be and often has been described as a *continuous creation*, and yet has no tendency to destroy, or even to diminish, the evidence of a presiding Intelligence in Nature, so no good reason can be assigned why it *might* not also have been adopted in the production of planets and astral systems, if so it had seemed good to Supreme Wisdom. If this method was adopted for the propagation of plants and animals, no reason can be given why it might not also have been adopted for the production of planets and moons; nor would it in the latter case, any more than in the former, impair the evidence of God's creative wisdom and power. For, suppose it to be possible that, by a marvellous process of self-evolution, the material elements of Nature might assume new forms, so as to originate a succession of new worlds and new planetary systems, without the *immediate* or *direct* interposition of a Supernatural Will; suppose that the Earth and the other bodies now belonging to our own system, were generated out of a prior condition of matter, existing in a gasiform state and diffused through space as a Fire-Mist, subject to the ordinary action of heat and gravitation; suppose, in short, that there were LAWS FOR THE GENERATION OF WORLDS in the larger cycles of time, just as there ARE LAWS FOR THE GENERATION OF ANIMALS in the short ages of terrestrial life: would a provision for such a succession of marvellous developments necessarily destroy, or even impair, the evidence for the being and perfections of God? Does the generation of the animated tribes diminish the evidence of design in the actual constitution of the world? And why should a

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similar provision, if any such were found to exist, for the generation of stars and systems, be regarded in any other light than as an exhibition, on a still larger scale, of "the manifold wisdom of God?"

Let it ever be remembered that the Theistic argument depends, not on *the mode of production*, but on *the character of the resulting product*. The world may have been produced mediately or immediately,—with or without the operation of natural laws; but if it exhibit such an arrangement of parts,—such an adaptation of means to ends,—or such a combination of collocations and adjustments,—as enables us at once to discern the distinctive marks of intelligent design, the evidence cannot be diminished, it may even be possibly enhanced, by the method of production. Provision is made, doubtless, for the growth and development of the eye, the ear, and the hand in the human fœtus, and the process by which they are gradually formed is regulated by natural laws: but the resulting products are so exquisitely constructed, so admirably adapted to the elements of nature, and so evidently designed for the uses of life, that they irresistibly suggest the idea of wise and benevolent contrivances; and this idea is as strong and clear as it could have been, had they been produced instantaneously by the *direct* act of creative power. And so of the planets and astral systems: they may have been generated, *i.e.*, produced in a way of natural development; yet the resulting products are such as to evince the supreme wisdom and beneficence which presided over their formation. But even this is not all. Let us suppose, further, that Philosophy may yet reach its extreme, and, as we humbly conceive, unattainable limit; let us suppose that it may succeed in decomposing all the chemical elements now known by resolving them into ONE primary basis;

let us even suppose that it may succeed in reducing all the subordinate laws of Nature into ONE supreme and universal law ; still the development of such a system as we see around us out of such materials, and by such means, would not be necessarily exclusive of the idea of God, but might afford evidence of a Supreme Mind, creating, combining, and controlling all things for the manifestation of His adorable Perfections.

We have thus seen that the Theory of Cosmical Development is a mere hypothesis, incapable of experimental or historical proof ;—that the recent progress of scientific discovery has tended to disprove the fundamental assumption on which it rests ;—and that, even were it admitted as a possible, or, still more, as a plausible explanation of the origin of planets and astral systems, it would not serve to destroy, and scarcely, if at all, to diminish the evidence of Theism.

The last of these positions, if well established, might seem to supersede the necessity of discussing the hypothesis at all in connection with our present theme : but such a discussion of it as has been offered may be useful to those,—and they are not a few,—who, superficially acquainted with Science in its more popular form, are exposed to the danger of being seduced by the authority of a few distinguished names which have unfortunately become identified with the cause of Atheism. For while the Author of “*The Vestiges*” repudiates the atheistic conclusions which some have deduced from his hypothesis, M. COMTE boldly avows his creed in the following revolting terms :—“To minds unacquainted with the study of the heavenly bodies, Astronomy has still the reputation of being a science eminently religious, as if the famous verse, ‘*Cœli enarrant gloriam Dei*’ (‘The heavens declare the glory of God’), had preserved all its

force." And he adds, in a note, "At present, to minds that have been early familiarised with the true astronomical philosophy, the heavens declare *no other glory* than that of Hipparchus, Kepler, Newton, and all those who have contributed to the establishment of their laws!" The *reader* of these laws may become illustrious, but the Maker of them must be utterly ignored!

§ 2.—THEORY OF *PHYSIOLOGICAL* DEVELOPMENT; OR THE PRODUCTION OF VEGETABLE AND ANIMAL RACES BY NATURAL LAW.—"TELLIAMED."—"PHYSIO-PHILOSOPHY."

The Theory of Development has been applied, not only to explain the origin of worlds and of astral systems in the sky, but also to account for the origin of the various tribes of vegetable and animal life which exist on the earth itself. There is nothing, indeed, in any of the kingdoms of Nature that may not be included in it, since the formation of all material bodies, organic or inorganic, is supposed to be sufficiently accounted for by the sole action of Chemical or Mechanical laws. The wide range of this theory is strikingly illustrated by the words of one whose powers of observation have added some interesting discoveries to Natural History, but whose speculations on the origin of Nature resemble the distempered ravings of lunacy, rather than the mature results of philosophic thought. "Physio-philosophy has to show," says Dr Oken, "how, and in accordance indeed with what laws, the Material took its origin, and, therefore, how something took its existence from nothing. It has to pourtray the first periods of *the world's development from nothing*; how the elements and heavenly bodies originated; in what method, *by self-evolution* into

higher and manifold forms, they separated into minerals,—became finally organic,—and, in Man, attained self-consciousness. . . . Physio-philosophy is, therefore, *the generative history of the world*; or, in general terms, the history of Creation, a name under which it was taught by the most ancient philosophers, viz., as Cosmogony. From its embracing the Universe, it is plainly the Genesis of Moses!” *

It will be observed that this strange speculation goes far beyond the comparatively modest conjecture of La Place. It postulates *nothing*, and undertakes to account for *everything*. In flagrant opposition to the old atheistic maxim, “Ex nihilo, nihil,” it boldly affirms, “Ex nihilo, omnia.” It speaks, indeed, of “laws in accordance with which the world took its origin;” but these laws must be as abstract as those of Mathematics, since they existed before Matter itself—nay, more abstract, or, rather, more inconceivable still, since they existed, it would seem, even before Mind! Dr Oken attempts to explain the production of the world from nothing by comparing it to the evolution of Arithmetical and Mathematical Science, out of the fundamental conception of *zero*! But waiving this, we shall direct our attention to the only points in this theory which, in the existing state of speculative thought, can be held to have any practical interest in connection with our great theme.

That theory attempts to account for the production both of the FLORA and the FAUNA of the natural world by *the process of Development* rather than by *the miracle of Creation*. It proceeds on the assumption, akin to that of Epicurus, that atoms or monads alone existed in the first instance; and that from these were derived, under

* LORENZ OKEN, M.D., “Elements of Physio-philosophy”—reprinted (unfortunately) under the auspices of the Ray Society, London, 1847.

the action of natural law and by a process of gradual development, all existing substances and beings, whether organic or inorganic,—mineral, vegetable, or animal. “No organism has been created,” says Dr Oken, “of larger size than an infusorial point. No organism is, nor ever has one been created, which is not microscopic. Whatever is larger has not been created, but developed. Man has not been created, but developed.” On this fundamental assumption the whole theory is based. But we must carefully distinguish between the Atomic Theory and the application which is here made of it. The recent discoveries of Chemistry, by which all material compounds have been decomposed into their constituent elements, amounting to little more than fifty substances, which are either the primary or the proximate bases of all existing bodies,—and the marvellous transformations which these elementary principles undergo, in respect alike of form, of density, of solidity, and of magnitude, under the action of natural laws,—may serve to make it credible that there is no *a priori* impossibility in the assumption on which the Atomic Theory depends. Had it been the will of God to call into being the various vegetable and animal races in the way of gradual evolution out of these primary monads, no enlightened Theist will presume to say that it was either impossible, or inconsistent with His wisdom, to do so. It must be observed, however, that the natural analogies which have sometimes been appealed to in support of this hypothesis, labour under a grievous defect when they are applied to account for the origin of the existing races,—and that they are extended far beyond their legitimate limits when they are supposed to prove that these races might begin to be without any direct interposition of creative power. For while the oak may spring from an acorn, and the largest animal from a

microscopic monad, yet within the whole range of our experience both in the vegetable and animal kingdoms, *the seed is produced by the organism*, and necessarily presupposes it; whence it follows, either that there must have been an eternal succession of organisms producing seed, and thereby perpetuating the race, or if this be inconceivable, still more if it can be disproved by geological or historical evidence, then that the analogy of our present experience leads us up, not to “an infusorial point” or “microscopic monad,” but to a primary living organism as the commencement of each existing tribe. In the words of Dr Barclay, “It will not be easy, on any principles exclusive of the vital, to answer these questions—What was the origin of the first egg, or what was the origin of the first bird? For where is the egg that comes not from a bird, and where is the bird that comes not from an egg? To the mere materialists, who exclude every species of vitality but that from organism, this problem is nearly as embarrassing as the origin of the Universe itself.” *

If these views be correct, all the natural analogies would lead us to acquiesce, as Dr Barclay did, in the Mosaic narrative as the most philosophical account of the commencement of the present order of things. It traces up every race to a primary organism, endowed with reproductive powers: for it tells us, in regard to the FLORA, that God said, “Let the earth bring forth grass, *the herb yielding seed*, and the fruit tree yielding fruit *after his kind*, whose *seed is in itself*, upon the earth: and it was so.” And it tells us, with regard to the FAUNA, that God said, “Let the waters bring forth abundantly the moving creature that hath life, and fowl that

* DR JOHN BARCLAY, “Inquiry concerning Life and Organization,” pp. 33, 36. See also pp. 177, 235, 413, 526.

may fly above the earth in the open firmament of heaven. And God created great whales, and every living creature that moveth, which the waters brought forth abundantly, *after their kind*, and every winged fowl *after his kind*. And God blessed them, saying, *Be fruitful, and multiply*, and fill the waters in the seas, and let fowl multiply in the earth."

Here the distinction between different genera and species, and the provision that was made for the perpetuation of different races, are prominently presented; while the production, in the first instance, not of an "infusorial point" or "microscopic monad," but of a living organism capable of multiplying its kind, is expressly declared; and every race is traced up to that primary organism, in perfect consistency with the only law, whether of vegetable or animal reproduction, which is known to be in operation at the present day. And *this* law of reproduction, so far from being exclusive of a primary act of Creation, seems to presuppose and require it; for there must be a living organism before there can be vital transmission. But the theory of Physiological Development proceeds on a totally different supposition,—a supposition for the truth of which we have not only no historical evidence, but not even the slightest *analogical presumption*, since we have no instance of development anywhere except from a germ or seed, produced by an organism pre-existing in a state of maturity.

But the exigencies of that theory demand a wide departure from all the familiar lessons of experience; and hence recourse has been had to a series of the wildest and most extravagant conjectures, such as may well justify the opinion of those who have held that the creed of certain philosophers makes a much larger demand on

human credulity than that of almost any section of the Christian Church. For, according to that theory, the origin of the FLORA is first accounted for by the action of some element,—probably Electricity,—on a certain *mucus*, which is supposed to be generated at those points where the ocean comes into contact with the earth and air,—that is, on the shore of the sea at low water mark. MAILLET had broached the idea of the marine origin of all our present “herbs, plants, roots, and grains,”* at a period when the Universal Ocean, of which Leibnitz said so much, was still the creed of some speculative minds; but it has been more recently revived, and exhibited in greater detail, though not with stronger evidence, by some writers of our own age. Thus Dr Oken tells us, that “all life is from the sea;” that “when the sea organism, by self-elevation, succeeds in attaining into form, there issues forth from it a higher organism;” and that “the first organic forms, whether plants or animals, emerged from the shallow parts of the sea.” And so the author of “The Vestiges” attempts to show that new races, both of plants and animals, marine and terrestrial, may be accounted for, without any act of immediate creation, by a change or transmutation of species resulting from the agency of natural causes. “There is,” as he tells us, “another set of phenomena presented in the course of our history;—the coming into existence, namely, of a long suite of living things, vegetable and animal, terminating in the families which we still see occupying the surface. The question arises,—In what manner has this set of phenomena originated? Can we touch at, and rest for a moment on, the possi-

* “Telliamed; ou, Entretiens d’un Philosophe Indien avec un Missionnaire François, sur la Diminution de la Mer, la Formation de la Terre, l’Origine de l’Homme,” 2 vols, 1748.

bility of plants and animals having likewise been produced in the way of Natural Law, thus assigning but one class of causes for every thing revealed to our sensual observation? or are we at once to reject this idea, and remain content, either to suppose that creative power here acted in a different way, or to believe, unexaminingly, that the inquiry is one beyond our powers? ”* In reply to these questions, he proceeds to show that “there is a balance of probability from actual evidence in favour of *an organic creation by law*,” and that “in tracing the actual history of organic beings upon the earth,” as revealed by Geology, we find that “these came not at once, as they might have been expected to do if produced by some special act, or even some special interposition of will, on the part of the Deity;—they came in a long-continued succession, in the order, as we shall afterwards see more convincingly, of progressive organization, grade following grade, till, from a humble starting point in both kingdoms, the highest forms were realised.” Such is his general principle; and without entering into the details, we may sum up his general argument by saying, in the words of another,† that according to his theory, “dulse and hen-ware became, through a very wonderful metamorphosis, cabbage and spinach; that kelp-weed and tangle bourgeoned into oaks and willows; and that slack, rope-weed, and green-raw, shot up into mangel-wurzel, ryegrass, and clover.” So much for the *FLORA*: and now for the *Fauna*, and the transition from the one to the other. His views are thus exhibited by Sir David Brewster:—“The Electric spark, escaping from the wild elements around it, struck life into an elementary and reproductive germ, and sea-plants, the food of animals,

* “Vestiges of the Natural History of Creation,” 6th edition, p. 90.

† MR HUGH MILLER, “Footprints of the Creator,” p. 226.

first decked the rude pavement of the ocean. The lichen and the moss reared their tiny fronds on the first rocks that emerged from the deep,—land-plants, evolving the various forms of fruit and flower, next arose,—the Upas and the bread-fruit tree, the gnarled oak and the lofty cedar. Animal life appeared when the granary of nature was ready with its supplies. A globule, having a new globule forming within itself, which is the fundamental form of organic being, may be produced in Albumen by Electricity; and as such globules may be identical with living and reproductive cells, we have the earliest germ of organic life,—the first cause of all the species of animated nature which people the earth, the ocean, and the air. Born of Electricity and Albumen, the simple monad is the first living atom;—the microscopic animalcules, the snail, the worm, the reptile, the fish, the bird, and the quadruped,—all spring from its invisible loins. The human similitude at last appears in the character of the monkey; the monkey rises into the baboon,—the baboon is exalted to the ourang-outang,—and the chimpanzee, with a more human toe and shorter arms, gives birth to Man.”*

The remarks which were offered, in the previous Section, on Cosmical Development, are equally applicable, *mutatis mutandis*, to this other form of the doctrine of Creation by Natural Law.—It might be shown, with reference to the supposed generation of plants and animals, just as it was then shown with reference to the generation of planets and astral systems,—*first*, that the theory rests upon a mere hypothesis, which is utterly unsupported by experimental evidence; *secondly*, that the progress of Science has hitherto afforded no ground to believe that the transmutation of species is provided

* “North British Review,” 1845, p. 483.

for under the established constitution of Nature; and, *thirdly*, that even were the theory admitted, it would not destroy the evidence of Theism, any more than the propagation of plants and animals under the existing system, which, so far from excluding or impairing, serves rather to enhance and illustrate the proof of creative wisdom and power.—In support of this last position, we might adduce the testimony of the author of “The Vestiges” himself; for, referring to the idea that “to presume a creation of living beings by the intervention of law,” is equivalent to “superseding the whole doctrine of the Divine authorship of organic nature,” he takes occasion to say, “Were this true, it would form a most important objection to the Law theory: but I think it is not only not true, but the reverse of the truth. As formerly stated, the whole idea of Law relates only to the mode in which the Deity is pleased to manifest His power in the natural world. It leaves the absolute fact of His authorship of and supremacy over Nature precisely where it was.” He adds, in the words of Dr Buckland, “Such an aboriginal constitution, so far from superseding an Intelligent Agent, would only exalt our conceptions of the consummate skill and power that could comprehend such an infinity of future uses under future systems, in the original groundwork of His Creation.” *

But without enlarging on those general considerations which were formerly stated, and which admit of an easy and obvious application to this *second* form of the theory, we shall offer a few remarks bearing directly on its distinctive peculiarities, and directed to the exposure of its radical defects.

The theory rests on two very precarious foundations; —the assumption of *spontaneous generation*, on the one

* “Vestiges of the Natural History of Creation,” p. 92.

hand, and the assumption of a *transmutation of species* on the other. Each of these assumptions is necessarily involved in any attempt to account for the origin of the vegetable and animal races by natural law, without direct Divine interposition. For if, after the first organism was brought into being, the production of every subsequent type may be accounted for simply by a transmutation of species, yet the production of the original organism itself, or the first commencement of life in any form, must necessarily be ascribed either to a creative act or to spontaneous generation. A new product is supposed to have come into being, differing from any that ever existed before it, in the possession of vital and reproductive powers; and this product can only be ascribed, if Creation be denied, to the spontaneous action of some element, such as Electricity, on mucus or albumen. In this sense, the doctrine of spontaneous generation seems to be necessarily involved in the first step of the process of Development, and is, indeed, indispensable if any account is to be given of the origin of vegetable and animal life; but in the subsequent steps of the same process, it is superseded by a supposed transmutation of species, whereby a lower form of life is said to rise into a higher, and an inferior passes into a more perfect organism.

But we have no experience either of spontaneous generation, on the one hand, or of a transmutation of species, on the other. Observation has not discovered, nor has History recorded an authentic example of either. In regard to the *first*, the author of "The Vestiges" anticipates this objection, and attempts to answer it. The objection is, that "a transition from the inorganic to the organic, such as we must suppose to have taken place in the early geological ages, is no ordinary cognisable fact of the present time upon earth: structure, form, life *are*

never seen to be imparted to the insensate elements ; the production of the humblest plant or animalcule, otherwise than as a repetition of some parental form, is not one of the possibilities of Science.”* Such is the objection ; and how does he attempt to answer it? He endeavours to show, *first*, that the work of Creation having been *for the most part* accomplished thousands of years ago, we have no reason to expect “that the origination of life and species should be *conspicuously exemplified* in the present day; *secondly*, that the comparative infrequency, or even the entire absence, of such phenomena *now*, would be no valid reason for believing that they have *never* been exhibited heretofore,—if, on other grounds, the doctrine of “natural creation” or “life-creating laws” can be rendered probable; and, *thirdly*, that even in our own times, there ARE facts which seem to indicate the reality, or at least the possibility, of “the primitive imparting of life and form to inorganic elements.”†

Now, to this elaborate argument in favour of *spontaneous generation*, or the production of life by natural law, we answer, in the first place, that the mere fact of its being adduced in connection with the Theory of Development affords a conclusive proof that it is indispensable to the maintenance of that theory, that the hypothesis would be incomplete without it, and that no account can be given of Creation by the mere doctrine of a *transmutation of species*. It is the more necessary to make this remark, because not a few who embrace the latter doctrine affect to disown the former, and seek to keep it out of view. But the one is as necessary as the other to a complete theory of Natural Development. The author of “The Vestiges” felt this, and virtually acknowledges it, when he undertakes the task of vindicating the credibi-

* “The Vestiges,” p. 104.

† Ibid.

lity of spontaneous generation. But we answer, in the second place, that the method in which he performs his self-imposed task is singularly curious, and not a little instructive. He had, it must be owned, a difficult game to play. The general theory of "The Vestiges" is founded on the fact that, in the ordinary course of Nature, the races of plants and animals are perpetuated by propagation according to established Natural Laws,—a fact which might seem to afford a strong analogical argument in favour of the supposition, that the same order of Nature is maintained also in the few apparently exceptional cases, in which, from our defective knowledge, we are unable to trace the connection between the parent and the product. And yet the author evinces no little anxiety to make out a case in favour of "a non-generative origin of life even at the present day;" and he appeals to a class of facts, confessedly obscure, which have not been, as he thinks, satisfactorily accounted for by the law which usually regulates the production of organic beings. He refers us to the speculations of Dr Allen Thomson on the primitive production of Infusoria,*—to the facts which modern Science, aided by the microscope, has discovered respecting the Entozoa, or the creatures which live within the bodies of others,—and, above all, to the experiments of Mr Crosse and Mr Weekes, which seemed to result in the production of a small species of insect (*Acarus Crossii*) from the action of a voltaic battery on a saturated solution of the silicate of potash, or the nitrate of copper, or the ferrocyanate of potassium. The reason of his anxiety to avail himself of these cases is evident. The exigencies of his theory demanded a method of accounting for the primary origin of life different from any that can be found in the common process of propa-

* TODD, "Cyclopædia of Anatomy and Physiology," Article, Generation.

gation. He saw clearly enough that his main argument, founded, as it was, on the law of hereditary transmission, could not account for the production of the first organism; and that, if he would avoid either the doctrine of *Immediate Creation*, which is so offensive to him; or the idea of *Eternal Generation*, which is utterly excluded by the clearest lessons of Fossil Geology,—he must have recourse to the hypothesis of *Spontaneous Generation*. Hence he attempts to account for the commencement of new species both of plants and animals, in the course of the world's history, by a transmutation of species: while for the origin of the first species he has recourse to the same law of Development, but acting in widely different circumstances, and giving rise to what he calls “aboriginal generation,” whereby the inorganic passes into the organic, and life, form, and structure, are imparted to hitherto inert materials, by the action of Electricity on mucus or albumen. To accomplish this twofold purpose, he felt it necessary to insist, in the first instance, on the ordinary law of generation, as the established order of *mediate* creation; while he found it equally necessary, in the second place, to insist on those apparently exceptional cases in which the connection between the germ and the product has hitherto eluded philosophical research; and this for the purpose of showing that the original production of plants and animals was *not similar* to the ordinary method of their propagation, in any other respect than this, that in both cases the result is brought about by Natural Laws, without the direct interposition of any supernatural cause.

Now, in so far as his argument is founded on the principle of analogy,—and it is on this principle that it proceeds throughout,—we submit that it is radically vicious,

and utterly inconclusive. For the vast majority of cases in which the commencement of life and organization falls under our notice being confessedly those, not of primary production, but of mediate reproduction, it is reasonable to believe that the same law governs all cases alike, whether we have been able or not to trace the origin of life to the principle of propagation,—the few apparent exceptions being sufficiently accounted for by our imperfect knowledge of the causes and conditions on which they depend.—Besides, the argument from analogy in favour of a primary production of life by natural causes, in so far as it is founded on the present law of hereditary transmission, is radically defective, since the two cases are widely different,—the one presupposing *a primary organism of the same kind*, from which others are evolved by a law of natural succession,—the other exhibiting life as a new product, resulting not from any prior organism, but from the action of *causes of a totally different kind*, which are not known to be capable of giving birth either to vegetable or animal organisms, under the actual constitution of Nature.

But suppose, even, that the *Acarus Crossii* were admitted to be a real product of Galvanic action on the silicate of potash, and an undeniable instance of “a non-generative origin of life,” how would the illustrative example accord with the author’s general theory? It might afford a specimen of aboriginal production; but how would it fit in with his favourite doctrine of *a gradual and progressive advancement* from the lower to the higher forms of organization? The *Acarus*, at first supposed to be a new and hitherto unknown creature, is now acknowledged to be one of a very familiar species,—a species which may have deposited its ova, and propagated its kind, since the commencement of the present order of

things,—and whose eggs might very well resist the action even of nitrate of copper, since the creature itself could live in that poisonous mixture. Moreover, it belongs in point of organization to one of the highest orders of organisms,—not to the *radiata*, not to the *mollusca*, but to the highest type of the *articulata*, the nearest to the *vertebrata*. Had it been a monad,—a mere living cell,—which Galvanism evolved from the solution ; and had this primary product developed itself afterwards in various forms, according to the ascending scale of a progressively improving organization, it might have accorded admirably with the twofold doctrine of spontaneous generation and transmutation of species ; but unfortunately the first process is so perfect, in the present instance, as to leave little room for the second ; and we are almost tempted to hope that, perhaps, the clumsy and troublesome expedient of a transmutation of species may yet be superseded by the discovery of some method,—we know not what,—whereby not only the *articulata*, but the *vertebrata*, and even Man himself, may be immediately produced by some new combination of Nature's elemental laws !*

We have given prominence, in the first instance, to the doctrine of “spontaneous” or “aboriginal” production, because it constitutes an indispensable part of the Theory of Development, and because we believe that were this clearly understood, that theory would soon sink into general discredit or total oblivion, like the kindred speculations of Anaximander and Anaxagoras, of the old Ionic School. The experiments of Ehrenberg, instituted with the view of testing the doctrine of spontaneous generation, may be said to have decided the whole ques-

* MR HUGH MILLER, “Footprints of the Creator,” p. 233.

T. MONCK MASON, “Creation by the Immediate Agency of God.”

“Princeton Theological Essays,” Second Series, p. 422.

tion. They did not succeed, indeed, in explaining every apparently exceptional case; for some of the facts are still obscure, and will probably continue to be so, notwithstanding every extension of microscopic power, just as, in the analogous case of the Nebulæ, the increase of telescopic power has enabled us to resolve not a few of them into clusters of stars, while it has served to bring others yet unresolved within the range of our vision. But they were sufficient at least to show that, as far as our clear knowledge extends, the one uniform law, "*Omne vivum ex ovo*," universally prevails, and that the whole analogy of Nature, in so far as its constitution has been ascertained, is adverse to the doctrine of spontaneous generation. Ehrenberg detected the minute germs of vegetable mould, and the ova of some of the smallest animalcules; and when it is considered that these germs and ova are so tenacious of vitality that certain prolific seeds have come down to us from the age of the Pharaohs in the wrappings of the Egyptian mummies,—that they are widely diffused in the air and the waters, insomuch that no sooner does a coral reef appear above the level of the sea than it is forthwith covered with herbage by means of seeds wafted by the winds or deposited by the waves,—and that it is almost impossible to exclude them by any artificial expedient, since they are capable of resisting the action of boiling water and even of alcohol itself,—it cannot, we think, be denied that the few cases which still remain obscure or unexplained may be at least *probably* accounted for in accordance with the same natural law which is found to be invariably established in every department to which our clear knowledge extends.

In regard, again, to the supposed "transmutation of species," we are equally warranted in affirming that it is

destitute of all experimental evidence, and unsupported even by any natural analogy. As the doctrine of spontaneous generation stands opposed to the maxim, that *organic life can be produced only by organic life*; so the doctrine of a transmutation of species stands opposed to the equally certain maxim, that *like produces like, both in the vegetable and animal kingdoms*. Cuvier has demonstrated, with reference to the birds and reptiles preserved in Egypt, an entire fixity and uniformity of species, in every even the least particular, for at least three thousand years.* In the actual course of Nature we see no tendency to change; nay, a barrier seems to have been erected in the constitution of Nature itself to prevent the possible confusion of races by promiscuous intercourse, through that provision which renders the mule incapable of reproduction. No plant has ever been found in a state of transition from a lower to a higher form,—no instance has ever been produced of one of the algæ being transmuted into the lowest form of terrestrial vegetation,—nor of a small gelatinous body developing itself into a fish, a bird, or a beast,—nor of an ourang-outang rising into a man.† It is true, indeed, that “there is a capacity in all species to accommodate themselves, to a certain extent, to a change of external circumstances, this extent varying greatly according to the species. There may thus arise changes of appearance or structure, and some of these changes are transmissible to the offspring; but the mutations thus superinduced are *governed by constant laws and confined within certain limits*. Indefinite divergence from the original type is not possible, and the extreme limit of possible variation may usually be reached in a short period of time; in short, species have a real

* CUVIER, “Ossemens Fossiles,” p. 61.

† MR HUGH MILLER, “Footprints,” p. 254.

existence in Nature, and a transformation from one to another does not exist.” *

The whole science of Natural History is based on the existence of distinct species, capable of being discriminated from each other by certain characteristic marks; and the whole art of the Agriculturist and the Stock-breeder proceeds on the assumption of a law, invariable in its operation, whereby “like produces like, in the vegetable and animal worlds.” The instances to which the author of “The Vestiges” refers in support of his theory are utterly frivolous when opposed to the copious inductions to which they are opposed; and they may all be explained consistently with the *law of variation within definite limits*, as stated by Dr Whewell, or by our ignorance of all the conditions involved in each particular case. Nor is his argument, founded on the limited range of our observation, even with its singular illustration derived from Mr Babbage’s calculating engine, fitted to diminish, in the slightest degree, our confidence in the general results of these inductions; for, not to mention that it amounts to nothing more than an appeal from what we do know to what we do not know,—from knowledge to ignorance,—from the certainties of science to the mere possibilities of conjecture,—it has been well shown by Mr Miller, that our range of observation is not so limited as the author of “The Vestiges” would have us to believe, since “*extent of space* is, in a matter of this kind, equivalent to *duration of time*. For although no man has lived five hundred years, so as to observe the gradual development of the oak from the acorn in its various stages of progress, yet every man who can survey five hundred yards of an English forest can see the oak in every stage of its growth, and need have no doubt as

* DR WHEWELL’S “Indications,” p. 54.

to the law of its progressive development. And so, had there really been such a transmutation of species as is contended for, we might expect to find, somewhere on the vastly-extended sea-coasts of our islands and continents, some specimens of plants or animals in a state of transition from the lower to the higher forms."

We are told, indeed, in answer to this argument, that Mr Babbage's engine produces numbers according to a certain law up to a particular point, and then, most unexpectedly, perhaps even unaccountably, the law of the series is changed, and the next term exhibits a striking departure from the order previously followed; and so, it is argued, it may be in nature: each organism may propagate after its kind for immense periods, so as to give the impression of this being an invariable law; but at a certain stage the order may change, and the next term in the series may differ from all that went before it. The argument,—if it can be called an argument,—amounts to this: Mr Babbage's machine produces a *series of numbers, and of numbers only*, but according to different laws of succession; *ergo*, Nature may produce in the same way, and with similar variations, *different races of plants and animals*. The argument would have been perfect, if the engine had produced *something else than numbers*; if, as Professor Dod supposes, "while watching Mr Babbage's machine, presenting to us successive numbers by the revolution of its plates, we should suddenly see one of those plates resolving itself into types, and these types arranging themselves in the order of a page of 'Paradise Lost,' or even of 'The Vestiges of Creation;'"—in such a case, there might have been something in the argument; but even then, the withering question remains,

—Is there any man in his senses who would not immediately conclude that *some new cause was now at work?* ”

In short, in so far as the *facts of the case* are concerned, there is not only no known instance either of “spontaneous generation” or of “transmutation of species,” but there is not even any natural analogy that can give the theory the slightest aspect of verisimilitude. The author of “The Vestiges” thinks that a presumption in its favour may be derived from “the analogy of the inorganic world,”—in other words, from the supposed conversion of nebulæ into planets and astral systems by the operation of natural causes; but this analogy has been conclusively set aside by disproving the hypothesis on which it depends. He further thinks, that a favourable presumption may be derived from “the analogy of the organic world,”—in other words, from the process of propagation by which the races of plants and animals are perpetuated; but the presumption thence derived, so far from being favourable, is directly opposed to his theory, since all the facts which come under our cognisance in every department of Nature serve only to establish the two great maxims of Natural History,—that *organic life can spring only from organic life*,—and that *like produces like, both in the vegetable and animal world*.

If we have succeeded in disposing of *the facts of the case*, we shall have little difficulty in exposing *the fallacy of the principles* which are involved in the author’s speculations on this subject. It is of fundamental importance in this inquiry to form a clear and correct conception of the precise point at issue, and of the two alternatives between which we are called to make our choice. It has been well said that “the great antagonist points in the array of the opposite lines are simply the LAW of

Development *versus* the MIRACLE of Creation.”* And the author of “The Vestiges” virtually acknowledges this to be the real state of the question, when he says that “if we can see no *natural* origin for species, a *miraculous* one must be admitted.”† Now, the grand alternative being, Creation by Miracle or Creation by Law, *i. e.*, Creation by a Natural or by a Supernatural cause, we affirm that it is utterly presumptuous and unphilosophical to represent the one as less worthy of God, or more derogatory to His infinite perfections, than the other. Yet the author does not hesitate to say that the *natural* ought to be preferred to the *miraculous* method of accounting for the origin both of planets and of their inhabitants, for this among other reasons, that the latter would be derogatory to the wisdom and power of the Most High. His words are remarkable:—“The Eternal Sovereign arranges a solar or an astral system by dispositions imparted primordially to matter; He causes, by the same majestic means, vast oceans to form and continents to rise, and all the grand meteoric agencies to proceed in ceaseless alternation, so as to fit the earth for a residence of organic beings. But when, in the course of these operations, fuci and corals are to be for the first time placed in those oceans, a particular interference of the Divine power is required: and this special attention is needed whenever a new family of organisms is to be introduced,—a new fiat for fishes, another for reptiles, a third for birds,—nay, taking up the present views of Geologists as to species, such an event as the commencement of a certain cephalopod, one with a few new nodulites and corrugations upon its shell, would, on this theory, require the particular care of that same Almighty

* “Footprints of the Creator,” p. 19.

† “The Vestiges,” p. 105.

who willed at once the whole means by which infinity was replenished with its worlds?" "Is it conceivable as a fitting mode of exercise for Creative Intelligence, that it should be constantly paying a special attention to the creation of species, as they may be required in each situation throughout those worlds at particular times? Is such an idea accordant with our general conception of the dignity, not to speak of the power, of the Great Author?" "It would be distressing to be compelled to picture the power of God as put forth *in any other manner* than in those slow, mysterious, universal laws which have so plainly an eternity to work in." *

Such is the author's presumptuous decision on a matter which is far "too high for him." We offer the following remarks upon it:—

First of all, let it be observed that, unless on the principle of absolute Atheism, which he professes to repudiate, he cannot but acknowledge that *once* at least the power of God must have been put forth *in another manner* than "in those slow, mysterious, universal laws" of which he speaks,—and that even if he could succeed in disproving "repeated interferences of creative power," he could in nowise dispense with a primitive act of direct, immediate, supernatural creation, since he does not profess to believe in the eternal existence of matter and its laws. We find, indeed, that even in the subsequent acts of a continuous, but mediate creation, he is compelled to acknowledge a supernatural power as acting, in each individual case, according to established natural laws: for he says expressly, "There cannot be *an inherent intelligence in these laws*; the intelligence appears *external to the laws*, something of which the laws are but as the expression of the will and power. If this be admitted, the laws can-

* "The Vestiges," pp. 91, 96.

not be regarded as primary or independent causes of the phenomena of the physical world. We come, in short, to a Being beyond Nature, its Author, its God." . . . "When we speak of Natural Law, we only speak of *the mode in which the Divine power is exercised*; it is but another phrase for *the action of the ever-present and sustaining God*."* It is admitted, then, *first*, that there must have been a primary act of creation, in the highest and strictest sense, by a direct and immediate interposition of Divine power, at the commencement of created existence; and, *secondly*, that, even in the continuous work of creation, which is supposed to have been subsequently carried on after the method of development by established natural laws, Divine agency is still equally real, although it is differently manifested, and is indispensably necessary to account for the resulting products. Now, can it be reasonably asserted that the direct and immediate creation of such a being as Man would be more derogatory to the wisdom and power of God, than the primordial production of "a universal Fire-Mist," or even of "electricity and albumen?" or, will it be pretended that immediate creation of molluscs as molluscs, of fishes as fishes, of reptiles as reptiles, would be less worthy of the great Author of Nature than the establishment of a system which *must* in due time give them birth, and that, too, not without the concurrence and co-operation of the Divine will, for "natural law is but another phrase for *the action of the ever-present and sustaining God*?"

But while we hold that there is no good ground for an affirmative answer to these questions, we would carefully guard against rushing to the opposite extreme, and affirming, either that the production of new races by the method of natural law was, on *a priori* grounds, impossible, or that

* "The Vestiges," p. 9.

God might not have adopted that method, had He so pleased, in perfect consistency with the manifestation of His wisdom and power. We see that He has done so, under the actual constitution of Nature, so far as the production of *individuals* is concerned; we see not why a similar provision might not have been made for the production of *genera and species*. In either way His power and His wisdom might have been displayed. But when we are told that the one is derogatory to the Divine Majesty, and the other alone consistent with the loftiest views of His perfections, we denounce the whole speculation as one that is alike presumptuous and unphilosophical, on the simple but conclusive ground, that we are in no degree competent judges of the best method either of creating or of governing the world. Had we been asked to say whether it was likely that, under the rule of infinite wisdom and almighty power, certain insects, reptiles, and fishes, that are unattractive to the eye, and loathsome to the fastidious taste of many, could find a place at all among the works of God, we might have thought it improbable that they should be created: but they exist notwithstanding; and the fact of their existence is enough to silence all our presumptive reasonings. And surely it is not less, it is much more, presumptuous to affirm that, existing as they do, they could not have been brought into being without disparagement to Divine wisdom, otherwise than by the action of established laws, or by a process of natural development,—as if it were unworthy of God to *produce* that for whose production He confessedly did make *provision*.

But, further, we see here very strikingly exemplified the tendency of such speculations to *exclude God from all real, active, and direct connection with His works*. The dominion of Natural Law, which, as we shall afterwards

see, is held by M. Comte and Mr Combe to exclude the doctrine of a special Providence and the efficacy of prayer, is here extended by the author of "The Vestiges," so as to be exclusive also of any direct Divine interposition in the work of Creation itself, other than what may have been implied in the aboriginal production of matter and its laws, or in the subsequent concurrence of His will with the action of these laws in the established order of Nature.

We have said that the Theory of Development, as expounded in "The Vestiges," is not necessarily atheistic,—partly because the author professedly disclaims Atheism, and partly also because, in strict logic, it might still be possible, even on the basis of that theory, considered simply in itself and apart from the speculations with which it has been associated, to construct, from the actual phenomena of Nature, a valid proof for the being and attributes of God. And yet we have thought it necessary to advert to it, as one of the recent speculations of science, because, whatever may be its *professed aim*, its *practical tendency* is unquestionably hostile to the influence of religious truth. It will be found in the great majority of cases, and especially in the case of ardent youthful minds, that this theory, when it is embraced as an article of their philosophic creed, is, to all practical purposes, tantamount to Atheism. For not to insist on the consideration, so forcibly stated by others,* that the natural argument for the Immortality of Man, or for the doctrine of a Future Life, as implying distinct individuality and continued self-consciousness, must be materially weakened, if not entirely neutralised, by a theory of development which traces the human lineage up through the monkeys and fishes to albumen impreg-

* HUGH MILLER, "Footprints," pp. 13, 15.

PROFESSOR DOD, "Princeton Theological Essays," II. 432.

nated by electricity, or, further still, to a diffused Nebula or universal Fire-Mist; we think that the Sensational and Materialistic speculations with which the work abounds have a tendency to weaken the evidence for a living, personal, spiritual God, as the Creator and Moral Governor of the world, and to diminish that reverence, confidence, and love which these aspects of His character alone can inspire. The system of Epicurus, although it contained a formal recognition of a First Cause, has always been held to be practically atheistic, simply because it removed God from the active superintendence of the affairs of the world, and excluded the doctrine of a special providence and of a moral government. It was held, in the words of Cicero,—“*Epicurum verbis reliquisse Deos,—re sustulisse.*”^{*} And so in “*The Vestiges*,” Natural Law is substituted for Supernatural Interposition, not only in the common course of Providence, but in the stupendous work of Creation itself.

§ 3. THEORY OF SOCIAL OR HISTORICAL DEVELOPMENT.—

AUGUSTE COMTE.

It might have been thought that the principle of Development had exhausted its powers, and achieved its highest triumphs, when it had been applied successively to account, *first*, for the creation of planets and astral systems, and, *secondly*, for the production of vegetable and animal life; and that little could remain for it to do after it had succeeded in tracing the genealogy of MAN back, in a direct line through many generations, to the nebulous matter or luminous Fire-Mist which was diffused at the beginning of time throughout the Universe.

^{*} CICERO, “*De Naturâ Deorum*,” l. ii.

But on a more careful study of its last and highest product,—MAN, with his intellectual and moral nature, his religious beliefs, his social history, and his immortal hopes,—it seemed as if there were still some phenomena which remained to be accounted for,—some facts of palpable reality and great magnitude which had not yet been adequately explained. The mental faculties and their operations,—the moral laws that are universally recognised and appealed to,—the social institutions which have been established,—the religious beliefs and feelings which have generally prevailed,—and the rites of worship which have been observed in all ages and climes,—were so widely different from the phenomena of mere vegetable or animal life, that they seemed to demand a distinct account of their origin; and it might not be apparent, at first sight, how they could be reduced under the same all-pervading law by which the planets were formed, so as to exclude all idea of Divine supernatural interposition. This Herculean task was fearlessly undertaken, however, by M. AUGUSTE COMTE, and it has been elaborated with singular ability in his ponderous work, the “*Cours de Philosophie Positive*.”

M. Comte's Course of Positive Philosophy began to be delivered at Paris in the winter of 1829-30, and was completed in its published form in 1842-43. It comprehends a general outline of all the branches of Inductive Science, and of the relations which they bear to each other; and they are expounded in a style singularly copious, clear, and forcible. He has acquired, in consequence, a high reputation as a philosophical thinker, and has already found, in our own country, some able allies, and not a few enthusiastic admirers. The “*System of Logic*,” by John Stuart Mill, and “*The Biographical History of Philosophy*,” by G. H. Lewes, are avowedly

indebted to his speculations for some of their most characteristic contents; while the outline of his theory has been presented to the more popular class of readers, in England through the columns of "The Leader," and in Scotland through those of "The Glasgow Mechanics' Journal."

It is not my intention, nor is it necessary for my present purpose, to offer any remarks on the strictly scientific portion of his voluminous work; I shall confine myself exclusively to those speculations which bear, more or less directly, on the great cause of Natural and Revealed Religion, selecting them from all the various parts of his work, and exhibiting them, in one comprehensive view, as a compact theory of absolute and avowed Atheism.

The fundamental idea of his system is a supposed "law of the development of human thought," which regulates and determines the whole progress of the species in the acquisition of knowledge. This law is announced with the air of a man who has made a great discovery, and who is entitled, in consequence, to be regarded both as an original thinker, and as a benefactor to the world. "I believe," he says, "that I have discovered a grand fundamental law"—"the fundamental law of the development of the human mind;" . . . "the grand law which I have indicated in the first part of my system of Positive Politics, . . . where I have divulged, for the first time, the discovery of this law." * Now, what, it may be asked, is this marvellous discovery, which bids so fair both to immortalise its author, and to enlighten the world? It is stated briefly in the *first*, and illustrated at greater length in the *fourth* and following volumes of his work. The general outline of his theory is thus

* M. COMTE, "Cours de Philosophie Positive," I. 3, 6, 14; IV. viii., 653, 656, 708, 711, 723; V. 1, 9.

sketched:—"That law consists in this,—that each one of our leading conceptions, every branch of our knowledge, passes successively through *three different theoretic states*:—the state theological or fictitious, the state metaphysical or abstract, and the state scientific or positive. In other words, the human mind, by its nature, employs successively, in each of its researches, three methods of philosophising, whose character is essentially different, and even *radically opposed*: first, the Theological method; then, the Metaphysical; and, last of all, the Positive. Hence three systems of Philosophies, which *mutually exclude each other*. The *first* is the necessary starting point of the human mind; the *third* is its fixed, ultimate state; the *second* is purely provisional, and destined merely to serve as an intermediate stage." *

These are the *three* great stages through which the collective mind of Humanity must necessarily pass, in its progressive advancement towards a perfect knowledge of truth; but of these three, the *first*, or the Theological Epoch, is again subdivided, and exhibited as commencing with Fetishism,—then advancing to Polytheism,—and finally consummated in Monotheism.

FETISHISM is supposed to have been the first form of the Theological Philosophy; and it is described as consisting in the ascription of a life and intelligence essentially analogous to our own, to every existing object, of whatever kind, whether organic or inorganic, natural or artificial. It is traced to a primitive tendency, supposed to exist equally in man and in the lower animals, to conceive of all external objects as animated, and to ascribe to them the same, or similar, powers and feelings, with those which belong to the living tribes themselves.†

* M. COMTE, "Cours de la Philosophie Positive," I. 3.

† Ibid, v. 30, 42, 50, 96, 98, 101.

“Let an infant, for example, or a savage, on the one hand, and, on the other hand, a dog or a monkey, behold a watch for the first time, there will doubtless be no immediate profound difference, unless in respect to the manner of representing it, between the spontaneous conception which will represent, to the one and the other, that admirable product of human industry as a sort of veritable animal, having its own peculiar tastes and inclinations; whence results, consequentially, in this respect, a Fetishism fundamentally common to both, the former only having the exclusive privilege of being able ultimately to get out of it.” This instinctive and spontaneous belief,—the natural and indeed the necessary result of a tendency inherent in living beings,—is conceived to have been an indispensable and a most useful provision for the primæval state of man, and to have exerted a highly salutary influence on the progressive development of human thought. It is contrasted with the subsequent, but more advanced, stage of Polytheism;* and the latter is held to denote a spontaneous belief in supernatural beings, distinct from and even independent of matter, since it is passively subject to their will; while the former considers matter itself as animated, and has no idea of any higher or more spiritual form of being. It is further supposed that idolatry, properly so called, belongs to Fetishism only, and not at all to Polytheism, for this singular, but not very conclusive, reason among others, that if Polytheism be justly chargeable with idolatry because it recognises many wills, superior to Nature and having power over it, Catholicism would be equally liable to the same charge in respect of the homage which it renders to saints and angels!†

* M. COMTE, “Cours,” v. 37, 75, 91, 101.

† Ibid, v. 58, 87, 94, 105, 125, 278.

But Fetishism is only the initial step in the process of our intellectual development ; and it passes into Polytheism, not suddenly and *per saltum*, but slowly and gradually, through the intermediate stage of "*Astrolatrie*," or the worship of the heavenly bodies. The mind is imperceptibly divested of the idea that every thing around it is animated, and by a process of real, but as yet imperfect, generalization, it rises from Fetishism to Polytheism ; in which latter system of belief, an order of powers superior to Nature is recognised, while as yet there is no conception of a supreme and all-perfect Mind. The Polytheistic system, which prevailed so universally in the ancient world, and which still prevails among Heathen nations, is supposed to have been,—not a *declension* from a purer and better state, not a *corruption* either of Natural or Revealed Religion,—but *a step in advance* of the primary faith of mankind,—a result of growing intelligence,—a vast and most beneficial change in the right direction. It was the first great product of the metaphysical spirit, the result of an early, but imperfect generalization ; it constituted the principal era of the Theological history of mankind ; it was admirably adapted, and, indeed, indispensably necessary, to the exigencies of society at the time when it prevailed ; it was more intensely religious than Monotheism itself, since it brought men habitually into contact with a multitude of gods, whose symbols were always present and visible to the eye ; while it exerted a wholesome influence on Science, on Poetry, on Industry, on Morals, and, indeed, on the whole process of man's mental and social development.*

But Polytheism, although indispensable and salutary

* M. COMTE, "Cours," v. 107, 115, 119, 124, 136, 148, 162, 167, 207, 224, 229.

as a provisional belief, was not destined to be permanent; it was to be superseded in due time, at least in the case of the *elite* of humanity, by the higher and still more abstract system of Monotheism, which is regarded as the natural and inevitable product of human intelligence, independently of all supernatural teaching, at a certain stage of its development. But here, as in the former instance, the change is not effected suddenly; the human mind advances gradually from Polytheism to Monotheism, through the intermediate stage of the idea of Immutability or Destiny,—an idea suggested partly by the study of the invariable order of Nature, and partly by the irresistible domination of one great temporal power, such as the iron empire of Rome.* Historically, indeed, Monotheism is said to have spread in Europe through the Jews, who derived it from Egypt; but it is added that, had there been no Jews, others would have given birth to a system so necessary for the development of human thought. The prevalence of Monotheism, for a limited time, was useful and even necessary, as the natural result of the great law of human progress, and the indispensable precursor of a new and brighter era; but it was temporary and provisional merely,—a stage in the onward march of Development, not the ultimate landing-place of human thought. It is conceived to be radically incompatible with the recognition of invariable natural laws, and even with the exercise of the industrial arts.† It is, however, the last and highest form of the Theological Philosophy; and having reached this stage, the human mind necessarily advances beyond it, until it arrives at a point where all Theology disappears, and where it is entirely and for ever emancipated from

* M. COMTE, "Cours," v. 128, 164, 268, 279, 284, 290.

† Ibid., v. 297, 325, 461, 470; vi. 231.

all the beliefs, the hopes, and the fears which have any reference to an invisible, spiritual world.

The ultimate goal of speculative thought is "the Positive Philosophy," which treats only of the Facts of Nature, and of their co-ordination under general laws, to the utter exclusion of all supernatural powers, and of all knowledge of causes, whether *efficient* or *final*. But this goal cannot be reached, it seems, by a sudden or abrupt transition from the Theological to the Atheistic creed. There must be an intermediate stage,—the era, in short, of Metaphysics,—during which the process of Criticism will operate as a solvent on all previous beliefs, and by producing Scepticism, in the first instance, in regard to all other systems, will tend at length to concentrate the attention of mankind exclusively on the truths of Inductive Science. The Metaphysical Philosophy is held to be the necessary, but temporary, stage of transition from the Theological to the Positive method in science. It is destined to supersede the one, and to introduce the other. It is conceived to be equally at variance with both: and the era of its ascendancy is described as a critical, destructive, revolutionary age, useful only as it delivers mankind from the shackles of former beliefs, and prepares them for the adoption of a new and purely natural system of thought. During this era of decomposition, there will commence the reconstruction of human opinion on new and more solid foundations; and the transition from Monotheism to Positive Science will be the greatest achievement of the race, greater far than the advance from Fetishism to Polytheism, or even from Polytheism to Monotheism itself.—The culminating point of human progress is absolute and universal Atheism.*

* M. COMTE, "Cours," v. 479, 487, 496, 505; vi. 2.

Surely such a prospect may well arrest the most thoughtless, and prompt them to inquire with some measure of moral earnestness,—What is this Positive Philosophy? this ultimate landing-place of human thought? this final goal of human progress? Is it nothing else than the Inductive Science of Bacon, but under a new and less attractive name? or, is it a philosophy radically different from it, and entitled, therefore, to be regarded as an original method? The author tells us that he might have called it “Natural Science” or “the Philosophy of Nature,” since it treats of Facts and their Laws; but that he had been induced to prefer the distinctive title of *positive*, as one better fitted to mark the contrast between it and the *negative* character of those metaphysical and theological systems which it is destined to supersede. And yet it will be found that, in so far as it differs at all from the Inductive Science of Bacon, it is purely *negative*, since its chief characteristic is the negation of all Theology, and the entire exclusion from the domain of human knowledge of Causes, whether efficient or final. It *adds* nothing to the sum of human thought which might not be reached by Bacon’s method; it only *subtracts* whatever has reference to the Divine and Supernatural, and especially every thing connected with the theory of Causation. It makes no new contribution to the general stock, unless, indeed, it be the hitherto unknown law of development which is supposed to regulate and determine the progress of humanity from primæval Fetishism to ultimate Atheism; and it takes away Theology, with all its ennobling beliefs and blessed hopes, not by grappling with and solving, but by merely discarding, the problem both of the origin and end of the world.

That this is a correct account of the new theory is evi-

dent from his own words :—"The fundamental character of the Positive Philosophy is, to regard all phenomena as subjected to invariable natural *laws*, the precise discovery of which, and their reduction to the least possible number, is the end of all our efforts, while we regard the investigation of what are called *causes*, whether first or final, as absolutely *inaccessible and void of sense for us*." "We have no pretension to expound the producing causes of the phenomena, for in that we can never do more than push back the difficulty; we seek only to analyse with exactitude the circumstances of their production, and to connect them with one another by the normal relations of *succession and similitude*." "In the positive state of science, the human mind, acknowledging the impossibility of obtaining absolute knowledge, abandons the search after the *origin and destination* of the universe, and the knowledge of the secret *causes* of phenomena." *

It is thus plainly announced that the Positive Philosophy is the science of facts and their laws, exclusive of all reference to causes, efficient or final; and it is even admitted that Theology could not be excluded, were it deemed legitimate or possible for the human mind to investigate the causes of phenomena.

Viewing the theory in this light, we submit the following remarks as a sufficient antidote to this daring, but impotent, attempt to exclude Theology from the domain of human knowledge :—

1. It is worthy of notice how completely the Infidel party have shifted their ground and changed their tactics since the era of the first French Revolution; and how utterly inconsistent are the arguments of M. Comte and the Positive School, with those of Voltaire and the Encyclopædists. Formerly Religion was wont to be

* COMTE, "Cours," I. 4, 10; IV. 664, 669, 676, 702.

ascribed to priestcraft: it was supposed to have been invented by fraud, supported by falsehood, and professed in hypocrisy; and the Church, but especially the hierarchy of Rome, was the object of incessant ridicule or malignant abuse. But now, Religion is discovered to be the natural, necessary, and salutary result of the legitimate action of the human faculties in the earlier stages of their development,—the initial impellent of social progress,—the indispensable condition of advancing civilization; and, on the broad general principle that sincerity of conviction is essential to wide-spread success, the theory which ascribes its origin to the fraud or the policy, whether of kings, or priests, or fanatics, is scouted as a mere delirium of Voltaire, or as one of those revolutionary prejudices of his disastrous era, which were alike irrational and injurious. And the Church, so far from being ridiculed or maligned, is lauded above measure as the highest extant product of *human* wisdom; Catholicism is even preferred to Christianity itself, as a manifest improvement on the more primitive form of faith and worship; it is declared to be the indispensable basis of the future reorganization of society, which, when it shall have been freed from all Theological influence, its only point of weakness, will still survive with its separate speculative class, its imposing public forms, and its splendid hierarchy,—an Atheistic society, but still Catholic and One.* The change, in this respect, between the opinions which prevailed, respectively, at the era of the *first* and that of the *second* Revolution, is at once striking and instructive. It shows how variable and vacillating is the wretched creed of Infidelity; and how the firm maintenance of truth will eventually compel the homage, even where it may not succeed in carrying the convictions, of speculative minds.

* M. COMTE, "Cours," v. 299, 326, 345; vi. 62, 72, 157, 234, 503, 864.

That Religion in all its successive forms, from the rudest Fetishism up to the sublimest Christian Monotheism, has been the natural and genuine product of human intelligence, working ever onward and upward to a still higher stage of development,—that its existence was inevitable, and its influence, on the whole, highly beneficial,—and that, even when it shall have passed away, society will still be largely indebted to it for the impulse, yet unspent, which it has imparted to the cause of civilization and progress,—all this is admitted, and even maintained by M. Comte, in direct and often derisive opposition to the theorists who once ascribed its origin to fraud, and its prevalence to priestcraft; nay, he elevates it to the rank of a primordial and indispensable element of human progress,—a necessary and legitimate result of the great law of human development. We know of no parallel instance of a change of opinion so great and sudden, unless it be the marvellous transition of certain modern Rationalists who were wont to ridicule the doctrine of the Trinity as absurd and incomprehensible, but who have now arrived at the conclusion that it is—the fundamental law of human thought! *

Still, with all this outward homage to Religion, considered as a mere matter of history, the theory of M. Comte is essentially, and even avowedly Atheistic. It is mainly designed to account for the origin of all Religion, whether Natural or Revealed, without having recourse to the supposition either of the existence of God, or of his interposition at any time in the affairs of men. He seems to have proposed to himself a twofold object: *first*, to account for the prevalence of the various forms of natural religion and superstition, without recognising any valid evidence for the existence of supernatural powers;

* ABBÉ MARET, "Theodicée Chretienne," p. 218.

and, *secondly*, to account for the origin of Judaism and Christianity, or, as he calls it, of Monotheism, without recognising the reality of any Divine Revelation. And he attempts to accomplish *both* objects by means of the same law,—a law of development which in primitive times produced Fetishism,—which then produced Polytheism,—then Monotheism,—then the Metaphysical transition era, during which all Theology is undergoing a process of disintegration and decay,—and, last of all (the noblest, because the latest, birth of time), the Positive Philosophy, under whose predicted ascendancy all Theology must die and be buried in everlasting oblivion. —His theory is not merely Anti-Protestant, although it is bitterly so;* nor merely Anti-Christian, as opposed to all Revelation: but it is Anti-Theological, as opposed to all Religion. It proposes to eliminate Theology from the scheme of our knowledge, by showing that it is utterly inaccessible to our faculties, and neither necessary to society nor useful to morals.† It anticipates the time, as being near at hand, when it shall have no existence, save on the historic page.

2. This Atheistic theory rests entirely on a supposed discovery of M. Comte,—the discovery of a *law of human development*, which serves at once to account for the origin and prevalence of Theological beliefs in the past, and to ensure their utter disappearance in the future; a law which, like the magician's wand, can raise the apparition, and then lay it again! Now, of this law we affirm and undertake to prove that it is *utterly groundless*; that it has no solid basis of evidence on which it can be established; that it is contradicted by the history of the world, and opposed to our own experience at the present day.

* M. COMTE, "Cours," v. 327, 344, 369, 538, 582, 684; VI. 137.

† Ibid, v. 428, 597, 684, 836; VI. 419, 521, 860.

It can scarcely be imagined that a man accustomed as M. Comte has been to the severe pursuits of Science, could give publicity to a law of this kind, and claim the credit of a great original discovery, without having some plausible reasons to plead for it; and he does assign certain reasons for his belief, which are, it may be safely affirmed, as frivolous and inconclusive as any that have ever been offered in support of the most baseless reverie. They may be reduced to THREE: the *first*, derived from our cerebral organization; the *second*, from the history of a certain portion of our species; the *third*, from the analogy of our individual experience.*

He founds, in the first instance, on our *cerebral organization*. He is an ardent admirer of Drs Gall and Spurzheim, and has no scruple in avowing himself a decided Materialist. It is unnecessary here to enter on a discussion of Materialism, or even of Phrenology,—that will be done hereafter: in the meantime it is enough merely to indicate the fact that the theory proceeds on that ground, and then to inquire *how the fundamental law of Development is deduced from it*. How does the theory of Materialism, or even of Phrenology, were it assumed on the one side and admitted on the other, contribute to the establishment or verification of that law? Suppose it to be conceded that every mental faculty or propensity has a distinct cerebral organ, or, more generally, that the brain may be divided into three parts, representing, respectively, the animal propensities, the more elevated sentiments, and the intellectual faculties,—could it be rationally inferred from this concession that human nature must necessarily develop itself after a certain order or method, and, especially, in the precise way that is indicated in M. Comte's law? Would it prove that Man

* M. COMTE, "Cours," I. 44, 141; IV. 673; V. 45, 303.

must needs pass, in the process of his mental and social development, through *three* distinct and successive stages,—the preparatory Theological state, the transitory Metaphysical state, and the final Positive state? Would it prove that Religion must first exist as Fetichism,—then as Polytheism,—then as Monotheism,—and thereafter disappear from the earth altogether—on the advent of M. Comte? He seems to think that there is a real connection between the cerebral theory and his great fundamental law; but it is not easy for a common reader to discern or to explain it. Considering the Cranium, according to what he conceives to be the true anatomical theory, as simply a prolongation of the vertebral column,—the primitive centre of the whole nervous system,—he argues that the functions, intellectual and emotional, which are proper to the upper and anterior parts of it, are less energetic than the animal propensities, whose organs lie in the lower and posterior region, just in proportion as they are further removed from the spine; and that, for this reason, the latter must first come into action,—then, the intermediate organs of sentiment,—and last of all, the intellectual powers. And this doctrine he applies to the verification both of his otherwise admirable classification of the Sciences, and of his far more doubtful law of human development. We conceive that if it were applicable at all to the problem of human progress, it might possibly be applied to indicate the probable development of an *individual mind*, in the successive stages of infancy, youth, and manhood; but that it does not admit of the same application to *the history of the race*, otherwise than by the aid of a very fanciful analogy. We have no faith in the *a priori* methods of constructing the chart of human history, and tracing the necessary course of social progress, which have recently become so

popular in Germany and France. We cannot, with M. Comte, undertake to solve the problem,—Given three lobes of the brain, representing the propensities, affections, and intellectual powers, but differing from each other in size and situation,—what will be the future history of the race,—religious, æsthetic, industrial, metaphysical, social? We cannot, with M. Cousin, undertake to solve the problem,—Given three terms, the finite, the infinite, and the relation between the two,—what will be the development of human thought, *first*, in the experience of individuals, and, *secondly*, in the history of society? * All such problems are too high for us. The history of the human race must be ascertained from the authentic records and extant monuments of the past,—not constructed by theories, or divined by *a priori* speculations.

But M. Comte does appeal, in the second instance, to history in confirmation of his views. He is far from affirming, however, that the progress of the race, under the operation of his great law of development, has been either uniform or invariable; on the contrary, he admits, with regard to India, China, and other nations, comprising probably the majority of mankind, whose state, intellectually and socially, has been stationary for ages, that they afford little or no evidence in support of his theory; and for this, among other reasons, he confines himself to the history of what he calls the *elite*, or advanced guard, of humanity, and in this way makes it a very “*abstract*” history indeed! † Beginning with Greece as the representative of ancient civilization, and surveying the history of the Roman empire, and of its successors in Western Europe, he endeavours to show

* VICTOR COUSIN, “Introduction à l’Histoire de la Philosophie,” I. 121.

Ibid, “Cours de la Philosophie,” III. 2, 464.

† M. COMTE, “Cours,” V. 3, 5, 22; VI. 32, 481.

that the actual progress of humanity has been, on the whole, in conformity with his general law. He gives no historical evidence, however, of the prevalence of Fetishism in primitive times,—*that* is an inference merely, depending partly on his theory of cerebral organization, and partly on the assumption that in the savage state, which is gratuitously supposed to have been the primitive condition of man, there must have been a tendency to regard every object, natural or artificial, as endowed with life and intelligence. Polytheism, again, he conceives to have been a step in advance,—an improvement on the pre-existing state of things; instead of being, as it really was, a declension from a purer and better faith,—an aberration from the light of Nature not less than from the lessons of Revelation. He conceives Monotheism, whether as taught to the Jews by Moses, or to the world at large by Christ and his apostles, to have been the natural product of man's unaided intelligence; and he assumes this, without making a single reference to the supernatural events by which its publication, in either instance, is said to have been accompanied, or to the sacred books in which they are recorded; nay, he does not even name the Founder of the Christian faith, otherwise than by describing him as “the founder, real or imaginary, of this great religious system.” *

In treating, again, of the Critical or destructive system of Metaphysics, and of the Positive or reconstructive system of the New Philosophy, he adduces no evidence to show that *the same element* is negatived by the one, and restored by the other: on the contrary, were his statement true in all respects, it would only serve to prove that the Theological element, which is slowly dissipated

* M. COMTE, “Cours,” v. 382, “Premier fondateur, réel ou idéal, de ce grand système religieux.”

by Metaphysics, is formally and finally abjured by Positivism. He assumes and asserts, on very insufficient grounds, that there is a real, radical, and necessary contrariety between the facts and laws of Science, and the first principles of Theology, whether natural or revealed; and he anticipates, therefore, that in proportion as Science advances, Theology must recede, and ultimately quit the field. He ought to have known that there are minds in every part of Europe as thoroughly scientific as his own, and as deeply imbued with the spirit of modern Inductive Philosophy, who, so far from seeing any discordance between the results of scientific inquiry and the fundamental truths of Theology, are in the habit of appealing to the former in proof or illustration of the latter; and who, the further they advance in the study of the works of Nature, are only the more confirmed in their belief of a Creative Intelligence and a Governing Power. It may be that, in his own immediate circle at Paris, there is a tendency towards Atheism; but assuredly no such tendency exists in the highest and most scientific minds of modern Europe; the faith of Bacon, Newton, and Boyle, of Descartes, Leibnitz, and Pascal, in regard to the first principles of Theology, is still the prevailing creed of the Sedgwicks, the Whewells, the Herschells, and the Brewsters of the present day.

The only plausible part of his Historical Survey, and that which, in our apprehension, is the most likely to make some transient impression on the popular mind, is his elaborate attempt to show, with regard to each branch of Science in detail, that it was enveloped during its infancy in a cloud of superstition, and that just in proportion as the light shone more clearly or was more distinctly discerned, the cloud was gradually dissipated and dispersed, until, one after another, they were all emanci-

pated from their supposed connection with supernatural causes, and reduced under fixed natural laws. Confounding Theology with Superstition, or failing, at least, to discriminate duly between the two, M. Comte draws a vivid picture of the successive inroads which Science has made on the consecrated domain of Religion, and represents the one as receding just in proportion as the other advances. For as the darkness disappears before the rising sun, whose earliest rays gild only the loftier mountain peaks, but whose growing brightness spreads over the lowly valleys and penetrates the deepest recesses of nature,—so Theology gradually retires before the advance of Science, which first conquers and brings under the rule of natural law, the simplest and least complicated branches, such as Mechanics and Astronomy; then attacks the more complex, such as Chemistry and Physiology; and last of all advances to the assault of the most difficult, such as Ethics and Sociology; until, having emancipated each of them successively from their previous connection with supernatural beliefs, it effects the entire elimination of Theology first from the philosophic, and afterwards from the popular, creed of mankind. M. Comte conceives that the religious spirit has been steadily decreasing throughout the whole course of human development,—from the time when it was universal, in the form of Fetishism, till it reached its most abstract, but least influential, form in Monotheism; and that now the period of its decline and fall has arrived, when it is subjected to the powerful solvent of a Metaphysical and Sceptical Philosophy, and when its ultimate extinction is certain under the action of Positive Science.

We deem this by far the most dangerous, because it is the most plausible, part of his speculations; so plausible

that, even where his reasonings in support of it may fail to carry the full conviction of the understanding, they may yet leave behind them a certain impression unfavourable to faith in Divine things; since they appeal to many palpable facts in the history of Science, too well attested to be doubted, and too important to be overlooked. The theory itself,—whatever may be thought of the peculiar form which it has assumed in the hands of M. Comte,—cannot be regarded, in its main and essential features, as one of his original discoveries; for the general idea on which it rests had been announced with equal brevity and precision by the celebrated LA PLACE:—“Let us survey the history of the progress of the human mind and of its errors; we shall there see *final causes constantly pushed back to the boundaries of its knowledge*. These causes, which Newton pushed back to the limits of the solar system, were even in his time placed in the atmosphere to explain meteoric appearances: they are nothing else, therefore, in the eyes of a philosopher, than *the expression of our ignorance of the true causes*.” Supposing this to be a correct account of the fact, the inference which M. Comte deduces from it might seem to follow very much as a matter of course,—the inference, viz., that in proportion as Science advances and succeeds in subjecting one department of Nature after another to fixed and invariable laws, Theology, or the doctrine of Final Causes, must necessarily recede before it, and at length disappear altogether, when human knowledge has reached its highest ultimate perfection.—But is it a correct account of the fact? Is it true that the doctrine of Final Causes is less generally admitted, or more dubiously maintained, in regard to those sciences which have already reached their maturity, than in regard to those other sciences which are still comparatively in their

infancy? Or is it true that it has lost instead of gaining ground by the progress of scientific discovery, so as to occupy a narrower space and to hold a more precarious footing *now*, than it did in the earlier ages of ignorance and superstition? Did Final Causes disappear from the view of Newton when he discovered the law which regulates the movements of the heavenly bodies? Did Galen or did Paley discard them when they surveyed the human frame in the light of scientific anatomy? or Harvey, when, impelled and guided by this doctrine as his governing principle, he discovered the circulation of the blood? In what departments of Nature, and in what branches of Science, does the Theistic philosopher or the Christian divine find the clearest and strongest proofs of order, adaptation, and adjustment? Is it not in those very departments of Nature whose laws have been most fully ascertained—in those very branches of Science which have been most thoroughly matured? Did we believe Comte and La Place, we should expect to find that the doctrine of Final Causes and the science of Theology could now find no footing in the domain of Astronomy, of Physics, or of Chemistry, since in these departments the phenomena have been reduced by many successive discoveries to rigorous general laws; and that they could only survive for a brief time by taking refuge in the yet unconquered territory of Meteorology, Biology, and Social Science. But is it so? Examine the Series of Bridgewater Treatises, or any other recent philosophical exposition of the Evidence of Natural Theology, and it will be apparent, on the most cursory review, that in point of fact the arguments and illustrations are derived almost entirely from *the more advanced sciences*; and that, so far from receding or threatening to disappear, Final Causes have only become more prominent and more striking in

proportion as inquiring men have succeeded in removing the veil from any department of Nature.

It were easy, indeed, to cull from the records of the past many facts which might seem to give a plausible aspect to the theory of M. Comte. We might be told of the early history of Astronomy, when the astrologer gazed upon the heavens with a superstitious eye, and spoke of the mystic influence of the planets, and constructed the horoscope for the calculation of nativities and the prediction of future events. We might be told of the early history of Anatomy, when, from the entrails of birds and animals, the *haruspex* prognosticated the fate of empires and the fortunes of battle. We might be told of the early history of Chemistry, when alchemists sought in their concoctions a panacea for all human evils, and in their crucibles an alkalest or universal menstruum. We might be told of the early history of Zoology, when the augur watched the flight, the singing, the feeding of birds, and applied them to the purposes of divination. We might be told of Aëromancy as the earliest form of Meteorology, and of Geomancy as the earliest form of Geology.* And we might be told of the popular superstitions which lingered, till a very recent period, among the peasantry of our own country, and which are now gradually disappearing in proportion as the light of Religion and Science is diffused.† These facts, which appear on the surface of human history, do unquestionably prove that *there has been a process of gradual advancement*, by which each of the sciences has been, in succession, purged of its earlier errors, and placed on a more solid and enduring basis. But they prove nothing more than this:

* "Encyc. Britan.," Articles, "Augury" and "Divination."

DR THOMSON'S "History of Chemistry."

† MR H. MILLER'S "Scenes and Legends of the North of Scotland."

they do *not* prove that these sciences must ultimately supersede Theology, or that they have a necessary tendency towards Atheism. On the contrary, we hold that they afford a valid presumption from analogy on the other side. For suppose even that Religion, following the same law of development which determines the progress of every other branch of human knowledge, had become incorporated, in its earlier stages, with many fond and foolish superstitions, the analogy of the other sciences would lead us to conclude that just as the reveries of Astrology had passed away and given place to a solid system of Astronomy; and as the vain speculations of Alchemy had been superseded by the useful discoveries of Chemistry; and as the arts of Augury and Divination had finally issued in the inductive science of true Natural History; so Theology might also purge itself from the fond conceits which had been for a time incorporated with it, and still survive, after all superstition had passed away, as a sound and fruitful branch of the tree of knowledge.

This is not the precise light, however, in which M. Comte regards Theology. He does not speak of it as *a distinct and independent science*, but rather as *a method of Philosophy*, which has been applied to the explanation of *all* the departments of Nature; and, viewed in this light, he objects to it on the ground that Positive Science peremptorily demands the elimination of all causes, efficient and final, and consequently the exclusion of all reference to God, or to any supernatural power, in connection with the laws either of the material or moral world. This is the fundamental basis of his theory; it is assumed that the recognition of natural laws is incompatible with the belief in supernatural powers, and that these laws must be invariable and independent of

any superior will. Hence the supposed antagonism between Theology and Physical Science, which is strongly affirmed by M. Comte,* as if the laws of Nature could not exist unless they were independent of the Divine will, or as if the arts of industry could not be pursued, on the supposition of a Providence, without sacrilegious presumption. The laws for which he contends must have had no author to establish, and can have no superior will to control them; they had no beginning and can have no end; they cannot be reversed, suspended, or interfered with; they are necessary, immutable, and eternal,—not subordinate to God, but independent of Him: they are, in short, nothing less than Destiny or Fate, the same that Cudworth describes as the Democritic, Physiological, or Atheistic Fate, which consists in “the material necessity of all things without a God.”† Now, we have no jealousy of natural laws. We believe in their existence; we believe also in their regular operation in the ordinary course of Nature; but we deny that they must needs be *independent* of a supreme will, and affirm that, being subordinate to that will, they are not necessarily *invariable*. They are expressly recognised and cordially maintained by divines, not less than by men of science; but in such a sense as to be perfectly compatible both with the doctrine of a primitive creation, and also with the possibility of a subsequent miraculous interposition. The Westminster Divines explicitly declare that “God, the First Cause, by His providence, ordereth all things to fall out *according to the nature of second causes*, either necessarily, freely, or contingently;” and that “in His ordinary providence, He maketh use of means, but is free to act without, above, and against

* M. COMTE, “Cours,” I. 13; v. 461, 470; vi. 86, 126, 148.

† DR CUDWORTH, “Intellectual System,” I. 33.

them at His pleasure.”* But M. Comte will have no laws, however regular, unless they be also invariable, and independent of any superior will. And, doubtless, if this were the sense in which Science has established the doctrine of natural laws, it would be at direct variance with Theology, both Natural and Revealed; and the antagonism between the two might afford some ground for the belief that, sooner or later, Theology must quit the field. But it is not the existence of these natural laws, nor even their regular operation in the common course of Providence, that is hostile to our religious beliefs,—it is only the supposition that they are unoriginated, independent, and invariable; and to assume this without proof, as if it were a self-evident or axiomatic truth, or to apply it in a process of historical deduction respecting either the past development or the future prospects of the race, is such a shameless begging of the whole question, that we know of no parallel to it except in the kindred speculations of Strauss, who assumes the same radical principle, and gravely tells us that whatever is supernatural must needs be unhistorical.†

There is absolutely no evidence, properly historical, that there is any necessary tendency in the recognition of established natural laws to supersede Theology, or to introduce an era of universal Atheism. Some such tendency might exist were these laws conceived of as necessary, independent, and invariable: but this hypothesis,—equally unphilosophical and irreligious,—is not and never has been maintained by the great body of Inductive inquirers, who see no contradiction either between

* “Westminster Confession of Faith,” chap. v. § 2, 3.

† STRAUSS, “Life of Jesus,” I. 88.

HENRY ROGERS, “Reason and Faith,” Appendix, p. 96.

the established order of Nature and the supposition of its Divine origin, or between the operation of natural laws and the recognition of a supreme, superintending Providence. Nor should it be forgotten in this connection that the evidence in favour of Theism depends not so much on *the mere laws*, as on *the dispositions and adjustments* that are observable in Nature.* There is, therefore, no historical proof to establish the supposed law of human development, and no rational ground to expect that the progress of Inductive Science will ever supplant or supersede Theology. It is true that Theology, although a distinct and independent science, is so comprehensive in its range that it gathers its proofs and illustrations from *every* department of Nature, and that were it excluded from any one of these, it might, for the same reason, be excluded from all the rest; but it is not true that there is any real or necessary antagonism between the laws of Nature and the prerogatives of God; on the contrary, let our knowledge advance, until *all* the phenomena both of the Material and Moral worlds shall be reduced under so many general laws, even then Superstition might disappear, but Theology would remain, and would only receive fresh accessions of evidence and strength, in proportion as the wise order of Nature is more fully unfolded, and its most hidden mysteries disclosed.

We scarcely know whether it is needful to advert at all to the argument in favour of his theory which M. Comte founds on *the analogy of individual experience*. It is a transparent fallacy. He tells us that the race is, like an individual man, Religious in infancy, Metaphysical in youth, and Positive, *i.e.*, Scientific without being Religious, in mature manhood.† Now, this analogical argument, to

* DR CHALMERS' Works, I. "Natural Theology."

† M. COMTE, "Cours," I. 7.

have any legitimate weight, must proceed on the assumption of two facts. The *first* is, that the law of individual development commences, in the case at least of all who belong to the *elite* of humanity, with Theology, and terminates in Atheism ; and the *second* is, that the individual is, in this respect, the type or pattern of his race, and that the experience of the one is only an outline in miniature of the history of the other. It would be difficult, we think, to establish the truth of either of these positions by evidence that could be satisfactory to any reflecting mind. We cannot doubt, indeed, for experience amply attests that the religious sensibilities of childhood have often been sadly impaired in the progress from youth to manhood, and that after the tumultuous excitements, whether of speculation or of passion, not a few have sought a refuge from their fears in the cold negations of Atheism. But is this the law of development and progress ? Is it a law that is uniform and invariable in its operation ? Are there no instances of an opposite kind ? Are there no instances of men whose early religious culture had been neglected, and who passed through youth without one serious thought of God and their relation to Him, but who, as they advanced in years, began to reflect and inquire, and ultimately attained to a firm religious faith ? If such diversities of individual experience are known to exist, then clearly the result is not determined by any necessary or invariable law of intellectual development, but must be ascribed to other causes, chiefly of a moral and practical kind, which exert a powerful influence, for good or evil, on every human mind. Montaigne speaks of an error maintained by Plato—"that children and old people were most susceptible of Religion, as if it sprung, and derived its credit, from our weakness."*

* MONTAIGNE, "Apology for Raimond de Sebonde," Essays, II. 148.

find M. Comte himself complaining, somewhat bitterly, that his *quondam* friend, the celebrated St Simon, had exhibited, as he advanced in years (*cette tendance banale vers une vague religiosité*), a tendency towards something like Religion.* Cases of this kind are utterly fatal to his supposed law of individual development, and they must be equally fatal to his theory of the progress of the human race.

Hitherto we have considered merely the reasons which M. Comte urges in support of his theory, and have endeavoured to show that they are utterly incapable of establishing it as a valid scientific doctrine. It may be useful, however, to advert, in conclusion, to some considerations which afford decisive objections against it, arising from the testimony of authentic history and the plainest principles of reason.

In so far as the testimony of history and tradition is concerned, nothing can be more certain than that the progress of the race has followed a very different course from that which M. Comte has traced out for it by his grand fundamental law. The theory of a primitive state of ignorance and barbarism, in which a rude Theology existed in the form of Fetishism, is opposed not more to the authority of Scripture, the earliest record of our race, than to the unanimous voice of antiquity, which attests the general belief of mankind in a primæval state of light and innocence. There is a sad but striking contrast between the views which are generally held by the Christian Theist, and those which are avowed by M. Comte on this subject. The Christian Theist admits the doctrine of a primæval Revelation and a pristine state of purity and peace: M. Comte maintains the doctrine of a primitive barbarism, and a natural aboriginal Super-

* M. COMTE, "Cours," VI., Preface, ix.

stitution. The Christian Theist believes in a fall subsequent to the creation of man, and ascribes the ignorance and error, the superstition and idolatry which ensued, to the perversion and abuse of his intellectual and moral powers: M. Comte affirms that man did not *fall*, that he did actually *rise* by a process of slow but progressive self-elevation—and that in *advancing* from Fetishism to Polytheism, and from Polytheism to Monotheism, and from Monotheism to Atheism, he has all along been determined by the law of his normal development. In the view of the Christian Theist, Revelation was the sun which shed its cheering rays on the first fathers of mankind, and which, after having been obscured for a time by the clouds and darkness of Superstition, shines out again, clear and strong, under the dispensation of the Gospel: in the view of M. Comte, Science is the only sun that is destined to enlighten the world,—a sun which has not yet fully risen, but which has sent before, as the harbingers of its speedy advent, a few scattered rays to gild the lofty mountain-peaks, while all beneath is still buried in Cimmerian darkness. The Christian Theist anticipates the time when the true light which now shineth shall cover the whole earth: M. Comte predicts its utter and final extinction when Positive Science shall have risen into the ascendant. His theory is contradicted by the history of the past: let us hope that the events of the future will equally belie his prediction. For Christianity is the only hope of the world. The prospects of man would be dark indeed on the supposition of its being abolished. “There might remain among a few of the more enlightened, some occasional glimpses of religious truth, as we find to have been the case in the Pagan world. But the degradation of the great mass of the people to that ignorance, and idolatry, and superstition,

out of which the Gospel had emancipated them, would be certain and complete. This retrograde movement might be retarded by the advantages which we have derived from that system, whose influence we should continue to feel long after we had ceased to acknowledge the divinity of its source. But these advantages would by degrees lose their efficacy, even as mere matters of speculation, and give place to the workings of fancy, and credulity, and corruption. A radiance might still glow on the high places of the earth after the sun of Revelation had gone down; and the brighter and the longer it had shone, the more gradual would be the decay of that light and warmth which it had left behind it. But everywhere there would be the sad tokens of a departed glory and of a coming night. Twilight might be protracted through the course of many generations, and still our unhappy race might be able to read, though dimly, many of the wonders of the eternal Godhead, and to wind a dubious way through the perils of the wilderness. But it would be twilight still; shade would thicken after shade; every succeeding age would come wrapped in a deeper and a deeper gloom;—till at last, that flood of glory which the Gospel is now pouring upon the world would be lost and buried in impenetrable darkness.” *

M. Comte's theory is liable to another objection, the force of which he seems, in some measure, although inadequately, to have felt and acknowledged. The three states or stages which he describes as necessarily *successive* are in point of fact *simultaneous*: they do not mark so many different eras in the course of human progress,—they denote the natural products of man's intelligence, the constituent elements of his knowledge in *all* states of society. The Theological, the Meta-

* DR ANDREW THOMSON, “Sermons on Infidelity,” p. 62.

physical, and the Scientific elements have always co-existed.—Diverse as they may be in other respects, they resemble each other in this,—they are all the natural and spontaneous products of man's intelligent activity. That they were, to a certain extent, *simultaneous* at first, and that they are *simultaneous* still, is actually admitted by M. Comte, while he conceives, nevertheless, that they are radically incompatible with each other; * and their co-existence hitherto is felt by him to be a serious objection to his fundamental law, which represents them not only as *necessarily successive*, but also as *mutually exclusive*. The fact is admitted, and that fact is fatal to his whole theory. For if the three methods have co-existed hitherto, why may they not equally co-exist hereafter? and what ground is left for the reckless prediction that Theology is doomed, and *must* fall before the onward march of Positive Science? If man was able from the beginning to observe, to compare, to abstract, and to generalise, and if the fundamental laws of human thought have been ever the same, it follows that there must have been a tendency, coeval with the origin of the race, towards Theological, Metaphysical, and Inductive Speculation, and that the same tendency must continue as long as his powers remain unchanged. It can only, therefore, be a *preponderance*, more or less complete, of one of the three methods over the other two, that we should be warranted in expecting, *even under the opera-*

* M. COMTE, "Cours," IV. 709: "Je puis affirmer n'avoir jamais trouvé d'argumentation sérieuse en opposition à cette loi, depuis dix-sept ans que j'ai eu le bonheur de la découvrir, si ce n'est celle que l'on fondait sur la considération de la *simultanéité jusqu'ici nécessairement très commune*, des trois philosophies chez les mêmes intelligences."

"Cours," I. 27, 50, 10: "L'emploi *simultané* des trois philosophies radicalement *incompatibles*,"—"la *co-existence* de ces trois philosophies opposées."

See also IV. 683, 694; V. 28, 39, 41, 57, 171; VI. 26, 31, 34, 155.

tion of *M. Comte's favourite law*; and yet he boldly proclaims the utter exclusion of Metaphysics, and the entire and everlasting elimination of Theology, as branches of human knowledge!

M. Comte's theory is still more vulnerable at another point. The fundamental assumption on which it is based is utterly groundless. It amounts to this, that all knowledge of causes, whether efficient or final, is interdicted to man, and incapable of being reached by any exertion of his faculties.* He tells us that Theology is impossible, for this reason, that in the view of the Positive Philosophy, all knowledge of causes is absolutely excluded; nay, he admits that Theology is inevitable if we inquire into causes at all. We know of no simpler or more effectual method of dealing with his specious sophistry on this subject, than by showing that if his general principle be conclusive against the knowledge of God, it is equally conclusive against the knowledge of any other being or cause; just as Sir James Mackintosh dealt with the sceptical philosophy of Hume, when, with admirable practical sagacity, he said, "As those dictates of experience which regulate conduct must be the objects of belief, all objections which attack them, in common with the principles of reasoning, must be utterly ineffectual. Whatever attacks every principle of belief, can destroy none. As long as the foundations of knowledge are allowed to remain on the same level with the maxims of life, the whole system of human conviction must continue undisturbed. . . . Scepticism has practical consequences of a very mischievous nature. This is because its *universality* is not steadily kept in

* M. COMTE, "Cours," I. 14: "En considérant comme *absolument inaccessible et vide de sens pour nous* la recherche de ce qu'on appelle les *causes*, soit *premières*, soit *finales*."

view and constantly borne in mind. If it were, the above short and plain remark would be an effectual antidote to the poison. But, in practice, it is an armoury from which weapons are taken to be employed against *some* opinions, while it is hidden from notice that the same weapons would equally cut down *every other* conviction. It is thus that Mr Hume's *theory of causation* is used as an answer to arguments for the existence of the Deity, without warning the reader that it would equally lead him to expect,—that *the sun will not rise to-morrow*.*

The exclusion of all knowledge of causes is so indispensable to M. Comte's theory that he admits "the inevitable tendency of our intelligence towards a philosophy radically Theological, as often as we seek to penetrate, on whatever pretext, into the intimate nature of the phenomena."† The exclusion of such knowledge would, of course, be fatal to Theology, since, without taking some account of causes, efficient and final, we cannot rise to God as the author of the universe. But did it never occur to M. Comte that the self-same principle may possibly be destructive of his present, or, at least, of his posthumous fame, as the author of the Positive Philosophy? For if we can know nothing of *efficient causes*, in what sense, or on what ground, shall any one presume to ascribe the authorship of this system to M. Comte? True, it may be said—Here is an effect which exhibits manifest signs of intelligence, order, and scientific skill; its parts are regularly adjusted and all directed to a common end; and reasoning after the *teleological* method, we must infer that it proceeded from a very clever, but somewhat eccentric, mind: but, unfortunately,

* SIR JAMES MACKINTOSH, "Encyc. Britan.,"—Preliminary Dissertation, p. 354.

† M. COMTE, "Cours," IV. 664.

final causes are as expressly interdicted as efficient ones ; and, on the principles of his own theory, the "Course of Positive Philosophy" can never be warrantably ascribed to the authorship of M. Comte !

A still more serious objection to M. Comte's theory respecting the law of human development arises from the false view which it exhibits of *the nature and history of Truth*, considered as the object of human knowledge. It is a favourite opinion with him, that man can have no *absolute* knowledge ; that truth is not fixed, but fluctuating ; that what was believed in one age, and believed *necessarily*, according to the fundamental laws of thought, is as necessarily disbelieved in the next ; and that there is no standard of truth at any time better or surer than the public opinion, or general consent of the most advanced classes of society.* This theory of Truth, as necessarily mobile and fluctuating, has a tendency, we think, to engender universal scepticism, even when it is stated, with various important modifications, by such writers as Lamennais and Morell ; but in the hands of M. Comte it becomes more dangerous still, since it represents the human race as having been from the beginning, through a long series of ages, subject to a law of development which not only *permitted*, but actually *compelled* them to believe a lie ; and thus casts a dark shade of suspicion both on the constitution of man and on the government of God.

Such a theory would seem also to preclude all rational calculations respecting the future progress and prospects of the race. For what ground can exist for any prognostication in regard to the ulterior advancement or ultimate destiny of man, if it be true that, in his past history, Fetishism has passed into Polytheism, and Poly-

* M. COMTE, "Cours," VI. 728, 730, 760, 826, 835, 866.

theism into Monotheism, without any extraneous instruction, and by the mere action of those inherent laws to which humanity is subject? and still more, if it be further true, that even now the human mind is in a state of transition, passing through the crisis of Metaphysical doubt towards the goal of Positive Atheism? Who shall assure us that this will be its last and final metamorphosis? It does appear to us to be one of the most singular and perplexing anomalies of his elaborate system, that he can dogmatise so confidently on the *terminus ad quem* of human progress, when from the *terminus a quo* there has been, according to his own account, a series of variations so wonderful, and a succession of states so diverse and opposite, as those which he describes. And yet he pronounces oracularly that Positive Science is the ultimate landing-place of human thought,—and that universal Atheism is the final barrier which must needs close and terminate the long series of developments!

We have spoken sternly of his system; we have no wish to speak harshly of the man. Had we any disposition to do so, there is more than enough in the personal explanation, prefixed to the closing volume of his work, effectually to disarm us. We have too much sympathy with the trials of a vigorous but eccentric mind, struggling in untoward circumstances, and against an adverse tide, to maintain a position of honourable independence, to say a word that could wound the feelings or injure the prospects of a man of science. But it is not unkind to add that his life might have been a more prosperous one, had he devoted himself to the pursuits of Science without assailing the truths of Religion; and that his fame would have been at once more extensive and more enduring, had it been left to repose

on his Classification or Hierarchy of the Sciences, without being associated with the more doubtful merits of his fundamental law of Man's Development.

§ 4. THEORY OF ECCLESIASTICAL DEVELOPMENT.—J. H. NEWMAN.

This particular phase of the general theory bears less directly on the subject of our present inquiry than either of the *three* which have already passed under review, and yet it has recently been applied in such a way as may entitle it to a passing notice.

For while the theory of Ecclesiastical Development has a *direct* relation only to the question in regard to the Rule of Faith, it has also an *indirect* or *collateral* relation to the truths of Natural as well as of Revealed Religion; and this relation demands for it, especially in the existing state of theological speculation, the earnest attention of all who are concerned for the maintenance even of the simplest and most elementary articles of Divine truth.

The most elaborate and systematic exposition of this theory is exhibited in the "Essay on the Development of Christian Doctrine," by JOHN HENRY NEWMAN: an Essay primarily directed to the discussion of the points of difference between the Popish and the Protestant Churches, but which will be found to have an important bearing also on some doctrines which are common to both, and especially on the fundamental articles of Natural Religion itself.

It is thus stated by Mr Newman:—"That the increase and expansion of the Christian Creed and Ritual, and the variations which have attended the process in

* NEWMAN'S "Essay on Development," p. 27.

the case of individual writers and churches, are the necessary attendants on any philosophy or polity which takes possession of the intellect and heart, and has had any wide or extended dominion; that, from the nature of the human mind, time is necessary for the full comprehension and perfection of great ideas; and that the highest and most wonderful truths, though communicated to the world once for all by inspired teachers, could not be comprehended all at once by the recipients, but, as received and transmitted by minds not inspired and through media which were human, have required only the longer time and deeper thought for their full elucidation. This may be called *the Theory of Developments.*"

It is further illustrated as follows:—"It is sometimes said that the stream is clearest near the spring. Whatever use may fairly be made of this image, it does not apply to the history of a philosophy or sect, which, on the contrary, is more equable, and purer, and stronger, when its bed has become deep, and broad, and full. It necessarily rises out of an existing state of things, and, for a time, savours of the soil. Its vital element needs disengaging from what is foreign and temporary, and is employed in efforts after freedom, more vigorous and hopeful as its years increase. Its beginnings are no measures of its capabilities, nor of its scope. At first, no one knows what it is, or what it is worth. It remains perhaps for a time quiescent; it tries, as it were, its limbs, and proves the ground under it, and feels its way. From time to time, it makes essays which fail, and are in consequence abandoned. It seems in suspense which way to go,—it wavers, and at length strikes out in one definite direction. In time it enters upon strange territory: points of controversy alter their bearing; parties

rise and fall about it ; dangers and hopes appear in new relations, and old principles reappear under new forms ; it changes with them in order to remain the same. In a higher world it is otherwise ; but here below *to live is to change, and to be perfect is to have changed often.*"*

In answer to the objection "that inspired documents, such as the Holy Scriptures, at once determine the doctrines which we should believe," it is replied, "that they were intended to create an idea, and that idea is not in the sacred text, but in the mind of the reader ; and the question is, whether that idea is communicated to him, in its completeness and minute accuracy, on its first apprehension, or expands in his heart and intellect, and comes to perfection in the course of time. Nor could it be maintained without extravagance that the letter of the New Testament, or of any assignable number of books, comprises a delineation of all possible forms which a Divine message will assume when submitted to a multitude of minds."†

What relation, it may be asked, can this theory respecting the development of revealed or Christian truth, bear to the question of the being and perfections of God ? We answer, that it is founded on a general philosophical principle which may affect the truths of natural as well as those of revealed Religion ; and that it is applied in such a way as to show that, as it has already led to the worship of angels and saints, so it may hereafter issue in the deification of Nature, which is Pantheism,—or in the separate worship of its component parts, which is Polytheism ;—and in either case the personality and supremacy of the one only, the living and the true God, would be effectually superseded, if not explicitly denied.

* NEWMAN'S "Essay on Development," p. 38.

† Ibid, p. 95.

But is there any real danger of such a disastrous consummation? We answer, that the mere co-existence of the theory of Ecclesiastical Development with the infidel speculations on the doctrine of Human Progress, is of itself an ominous symptom; and, further, that the mutual interchange of complimentary acknowledgments between the Infidel and Popish parties is another,—especially when both are found to coincide in some of the main grounds of their opposition to Scripture as the supreme rule of faith, and when the homage which the advocates of Development render to the theory of progress is responded to by glowing eulogiums from the infidel camp on the genius of Catholicism as the master-piece of human policy. But there are other grounds of apprehension, arising more directly out of the very nature of the theory of Development itself.

That theory has been described by Dr Brownson,—himself a convert to Catholicism,—as the product of “a *school* formed at first outside of the Church, but now brought within her communion,” and compared, in regard to its dangerousness, with the speculations of Hermes and Lamennais.* And a still more competent judge,—Professor Sedgwick of Cambridge,†—has characterised it as “a monstrous compound of Popery and Pantheism,”—according to which “the Catholic faith is not a religion revealed to us in the Sacred Books we call canonical, and in the works of the Fathers which are supposed to contain the oral traditions of the Apostles and their followers; but a new Pantheistic element is to be fastened on the faith of men,—a principle of Development which may overshadow both the *verbum Dei scriptum* and the *verbum Dei non scriptum* of the Romish Church, and

* BROWNSON’S “Quarterly Review,” No. 1, p. 43.

† SEDGWICK’S “Discourse,” Fourth Edition. Preface cccxciii.

change both the form and substance of primitive Christianity."

It is only justice to Mr Newman to say that he appears to have been aware of this possible objection to his theory, and that he makes an attempt to obviate it. Speaking of the difficulty which the Church experienced in keeping "Paganism out of her pale," he adverts to "the *hazard which attended on the development* of the Catholic ritual, such as the honours publicly assigned to saints and martyrs, the formal veneration of their relics, and the usages and observances which followed." And he asks, "What was to hinder the rise of a sort of refined Pantheism, and the overthrow of Dogmatism *pari passu* with the multiplication of heavenly intercessors and patrons? If what is called in reproach 'Saint-worship' resembled the Polytheism which it supplanted, or was a corruption, how did Dogmatism survive? Dogmatism is a religious profession of its own reality as contrasted with other systems; but Polytheists are liberals, and hold that one religion is as good as another. Yet the theological system was developing and strengthening, as well as the monastic rule, all the while the ritual was assimilating itself, as Protestants say, to the Paganism of former ages." *

It seems to be admitted in these words, that in the *past* history of the Church, the development of the Catholic ritual *was* attended with some danger of infection from Paganism or Pantheism; and there may be equal reason to fear that, in the *future* history of the Church, still working on the principle of development, that danger may be very considerably aggravated by the general prevalence of theories utterly inconsistent with the faith of primitive times. What the Church has already done

* NEWMAN'S "Essay," p. 447.

in the exercise of her developing power may be only a specimen of what she may hereafter accomplish. She has already developed Christianity into a system which bears a striking resemblance to Polytheism; she may yet develop it more fully, so as to bring it into accordance with philosophical Pantheism;—or retaining both forms, —for they are not necessarily exclusive of each other,— she may use the first in dealing with the ignorant, and reserve the second as a sort of esoteric doctrine for minds of higher culture. Nor let it be said that we are either unjust or uncharitable towards the Romish Church in suggesting the possibility of some such development; for what she has already done, and what she still claims the power of doing, afford very sufficient ground for our remarks.—When Dr Conyers Middleton published his celebrated “Letter from Rome,” showing an exact conformity between Popery and Paganism, and that “the religion of the present Romans is derived from that of their Heathen ancestors,” many liberal Catholics resented the imputation as an insult to their faith; but now Mr Newman not only admits the fact that the Church did *assimilate* its ritual to the Paganism of former ages, but vindicates her right to do so, and ascribes to her *a power of assimilation* to which it seems impossible to assign any limits. “There is, in truth,” says this writer, “a certain virtue or grace in the Gospel which changes the quality of doctrines, opinions, usages, actions, and personal characters which become incorporated with it, and makes them right and acceptable to its Divine Author, when before they were either contrary to truth, or at best but shadows of it.”—“Confiding, then, in the power of Christianity to resist the infection of evil, and to *transmute the very instruments and appendages of demon-worship to an Evangelical use*, . . . the rulers of the

Church from early times were prepared, should the occasion arise, to adopt, or imitate, or sanction *the existing rites and customs of the populace*, as well as *the philosophy of the educated class*.”—“The Church can extract good from evil, or at least gets no harm from it. She inherits the promise made to the disciples, that they should take up serpents, and, if they drank any deadly thing, it should not hurt them.”—“It has borne, and can bear, principles or doctrines, which in other systems of religion quickly degenerate into *fanaticism or infidelity*.” This marvellous power of assimilation,—which made “those observances pious in Christianity” that were “superstitions in Paganism,”—advanced rapidly in its work, and successively introduced the deification of man, the *cultus* of angels and saints, and the beatification of Mary as Queen of heaven and earth.—The sanctification, or rather *the deification of the nature of Man*, is one of these developments. Christ “is in them, because He is in human nature; and he communicates to them that nature, deified by becoming His, that it may *deify* them.” The worship of saints is another of these developments:—“Those who are known to be God’s adopted sons in Christ are fit objects of worship on account of Him who is in them. . . . Worship is the necessary correlative of glory; and in the same sense in which created nature can share in the Creator’s incommunicable glory, do they also share in that worship which is His property alone.” But a “new sphere” was yet to be discovered in the realms of light, to which the Church had not yet assigned its inhabitant:—“There was ‘a wonder in heaven:’—a throne was seen, far above all created powers, mediatorial, intercessory; a title archetypal; a crown bright as the morning star; a glory issuing from the Eternal Throne; robes pure as the heavens; and a

sceptre over all. And who was the predestined heir of that Majesty? Who was that Wisdom, and what was her name, ‘the Mother of fair love, and fear, and holy hope,’—exalted like a palm-tree in Engaddi and a rose-plant in Jericho, created from the beginning before the world in God’s counsels, and ‘in Jerusalem was her power?’ The vision is found in the Apocalypse, a Woman clothed with the Sun, and the Moon under her feet, and upon her head a crown of twelve stars.”—The DEIFICATION of Mary is decreed. The doctrine of her Immaculate Conception is a further *development* at the present moment, and who can tell what other developments may be in store for the future?

We advert to this form of the theory only in so far as it stands related to our great theme,—the existence, perfections, and prerogatives of the one only, the living and the true God; and it can scarcely be questioned, we think, that it has already introduced doctrines and practices into the Church which have a manifest tendency to obscure the lustre and impair the evidence of some of the most fundamental articles of Natural Religion. Let it still advance in the same direction, and who shall assure us that it may not develop into still grosser idolatry, or even into Pantheism? Why should it not develop, for example, into Sun worship? “On the new system,” says Professor Butler, “a modern growth of Christian Guebres might make out no feeble case:—the public religious recognition of this great visible type of the True Light is but a fair development of ‘the typical principle;’ the justifiable imitation of the guilt of heathens in its adoration is but an instance of the transforming powers of ‘the sacramental principle;’ while it requires but the most moderate use of the great instrument of orthodoxy, ‘mystical interpretation,’ to find the duty hinted (clearly

enough for watchful faith, though obscurely to the blinded or undevout) in those passages that speak of a 'tabernacle for the Sun'—or Deity itself being 'a Sun'—or the rising of 'the Sun of righteousness.' . . . Indeed, the whole body of the righteous are promised to 'shine as the Sun' in the heavenly kingdom,—an expression which, though it appear superficially to refer to a period not yet arrived, the Church has correctively developed into an assurance of their present beatification, and consequent right to worship, while it must be at once manifest, that if any representative emblem of the Deity may demand religious prostration in our Churches, the analogous emblem of the 'deified,' in the great temple of the Material Universe, may fairly expect a participation in that honour. It is true, there is an express command, 'Take heed lest, when thou seest the Sun, . . . thou shouldst be driven to worship them;' but so there is a command at least as distinct and imperative against the worship of *Images*, which Mr Newman instructs us has been repealed under the Gospel, and was never more than a mere Judaic prohibition—'intended for mere temporary observance in the letter.'”*

If it be said that, in the case of the Church of Rome, there is not only a process of development, but an infallible developing power, and that this affords a guarantee strong as the Divine promise itself, against that risk of error which is attendant on the ordinary methods of human teaching; we answer, that this is a mere assumption which requires to be proved, and that it cannot be proved in the face of the facts which attest the historical variations of the Romish Creed, as these are admitted and defended by Mr Newman himself.—For some of

* Letters of REV. W. A. BUTLER on the "Development of Christian Doctrine," p. 116.

these variations are not consistent developments of the primitive articles of faith, but involve either a corruption or a contradiction of these very principles: and if her infallibility has not preserved her from the deification of saints, what security have we that it will preserve her from the deification of Nature? if it has already introduced a Christian Polytheism, why may it not issue in a Christian Pantheism?

Admit the principle of development, and it may lead to the deification of man, as well as to the worship of Mary,—to a sacred Calendar of Heroes, as well as of Saints.* It may terminate either in Infidelity or in Superstition, according to the mental temperament of the individual by whom it is adopted and applied. “An organ of investigation being introduced, which may be employed for any purpose indifferently, the tendency of such a theory of religious inquiry will just tell according to the spirit in which it acts. A sceptic will develop the principle into Infidelity, a believer into Superstition; but the principle itself remains accurately the same in both.”† The connection between the theory of Ecclesiastical Development and the infidel theory of Progress has not escaped the notice of many acute and profound thinkers in recent times, nor the danger resulting from it to the most fundamental articles of faith.—“Modern Spiritualists tell us that Christianity is a development, as the Papists also assert, and the New Testament is its first and rudimentary product; only, unhappily, as the development, it seems, may be things so different as Popery and Infidelity, we are as far as ever from any criterium as

* PIERRE LEROUX, “*Sur l’Humanité*.”

AUGUSTE COMTE, “*Positive Calendar*.”—The author gave some account of this in an article contributed to the “*North British Review*,” May 1851.

† PROFESSOR BUTLER’S “*Letters*,” p. 87.

to which, out of the ten thousand possible developments, is the true; but it is a matter of the less consequence, since it will on such reasoning—be *always something future*.”* One of the most pernicious tenets of the Neologists beyond the Rhine is thus expressed by themselves:—“Christianity renews itself in the human heart, and follows *the development* of the human mind, and invests itself with new forms of thought and language, and adopts new systems of Church-organization, to which it gives expression and life.” “But are these teachers the *only* destroyers of Faith and Morals? Are not *they* also chargeable with precisely the same offence who command us to submit implicitly to the so-called divinely-inspired Spirit of ‘*one* living Infallible Judge’ or ‘Developing Power?’ Can we have *fixed* articles of faith and morals in this system, any more than in the other? No. ‘*Unus utrisque error, sed variis illūdet partibus.*’ There is the same evil in both, but it operates in different ways: in the former, every one develops for himself, in the latter, the Pope develops for every one. You look with fear on the progress of Rationalism; and what hope can any man derive from that of Romanism?”†

We have examined, each on its own peculiar merits, the various forms of the Theory of Development which have been propounded in modern times, and applied to account for the origin of planets and astral systems,—of vegetable and animal races,—and of the different successive systems of human opinion and belief. We have found that, imposing as it may seem to be, and high as its pretensions are, that theory has no claim to the

* “Eclipse of Faith,” p. 13.

† DR WORDSWORTH, “Letters to M. Gondon,” p. 153.

character of a scientific doctrine ;—that it is a mere hypothesis, and nothing more,—a speculative figment, which may be injurious to those who thoughtlessly dally with it, but which can have no power to hurt any one who will resolutely lay hold of it, and examine its claims.

“Gently, softly, touch a nettle,
And it stings you for your pains ;
Grasp it, like a man of mettle,
And it soft as silk remains.”

It is only necessary to add, that *the same general principle* seems to be involved in *all* the forms of this theory,—the principle, viz., that we are bound to account for the past *only* by causes known to be in actual operation at the present day. M. Comte lays it down in the following terms :—“Our conjectures on the origin or formation of our world should evidently be subjected to this indispensable condition,—not to allow of the interposition of any other natural agents than those whose influence we clearly discern in our ordinary phenomena, and whose operations *then* would only be on a greater scale. Without this rule, our work can have no truly scientific character, and we shall fall into the inconvenience, so justly made a ground of reproach to the greater number of geological hypotheses,—that of introducing, for the purpose of explaining the ancient revolutions of the globe, agencies which do not exist at the present day, and whose influence it is impossible, for that very reason, to verify or even to comprehend.” The same principle is strongly stated, but with due limitation, by Sir Charles Lyell, who insists on the explanation of all terrestrial changes by *means of causes and according to laws known to be in operation at the present day* :—“During the progress of Geology, there have been great fluctuations of opinion

respecting the nature of the causes to which all former changes in the earth's surface are referrible. The first observers conceived that the monuments which the Geologist endeavours to decipher, relate to a period when the physical constitution of the earth differed entirely from the present, and that, even after the creation of living beings, there have been causes in action distinct in kind or degree from these now forming part of the economy of nature. These views have been gradually modified, and some of them entirely abandoned." *

The general principle which is involved in these and similar statements may be perfectly sound, when it is applied merely to *natural events*, occurring in the ordinary course, and according to the established constitution, of the material and moral world ; but it is manifestly inapplicable to *supernatural events*, such as the creation of the world, or the revelation of Divine truth, since these events cannot be accounted for by any known natural cause, and must be ascribed to the immediate agency of a Higher Power. Without some such limitation, the general principle cannot be admitted, since it would involve an egregious fallacy. We must not limit Omnipotence by circumscribing the range of its possible exercise within the narrow bounds of the existing economy, or of our actual experience. We are not warranted to assume, that the origin of the world, on the one hand, or the establishment of Christianity, on the other, may be accounted for by *natural causes* still known to be in actual operation. In regard to *natural events* the principle is sound, and it is rigorously adhered to by the expounder of Natural Theology ; in regard to *supernatural events* it can have no legitimate application, except in so far as it is combined with the doctrine of efficient and final causes,

* LYELL, "Principles of Geology," I. 75.

which leads us up to the recognition of a Higher Power. It might be safe and legitimate enough, when we find a fossil organism imbedded in the earth, to ascribe its production to the ordinary law of generation, even although we had not witnessed the fact of its birth, provided the same species is known to have existed previously ; but when we find *new races* coming into being, for which the ordinary law of derivation cannot account, we are not at liberty to apply the same rule to a case so essentially different, and still less to postulate a *spontaneous generation*, or a *transmutation of species*, for which we have no experience at all.—In such a case, we can only reason on the principle, that *like* effects must have *like* causes,—that marks of *design* imply a *designing* cause,—and that events which cannot be accounted for by *natural causes*, must be ascribed to a Power distinct from nature, and superior to it. It is manifestly unreasonable to assume, that nothing can be brought to pass in the Universe otherwise than by the operation of the same natural laws which are now in action, or that, in the course of our limited and partial experience, we must necessarily know all the agencies that may have been at work during the long flow of time. And in accordance with these views, Sir Charles Lyell expressly limits the general principle to *natural events*, and shows that “ Geology differs as widely from Cosmogony, as speculations concerning the *Creation of Man* differ from his *History*.”



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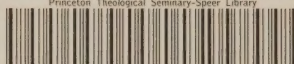
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